IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION

SIPCO, LLC	§	
	§	
Plaintiff,	§	
	§	
v.	§	**CIVIL ACTION NO.**
	§	**6:11-CV-0048 LED-JDL**
ABB, INC., et al,	§	
	§	**JURY TRIAL REQUESTED**
***Defendants*.**	§	

MEMORANDUM OPINION AND ORDER

This claim construction opinion construes the disputed claim terms in the four asserted patents: U.S. Patent No. 7,103,511 (the "'511 patent) entitled "Wireless Communication Networks For Providing Remote Monitoring Devices;" and U.S. Patent Nos. 6,437,692 (the "'692 patent"); 7,697,492 (the "'492 patent"); 6,914,893 (the "'893 patent"); all entitled "System and Method for Monitoring and Controlling Remote Devices" (collectively, the "patents-in-suit"). The matter has been fully briefed.[1] For the reasons stated herein, the Court adopts the construction set forth below.

OVERVIEW OF THE PATENTS-IN-SUIT

The patents-in-suit are generally directed towards monitoring or controlling remote devices using wireless mesh communications technology. *See, e.g.,* '511 patent at Abstract; *id.*at

[1] Plaintiff SIPCO, LLC ("SIPCO") filed an Opening Claim Construction Brief (Doc. No. 202) ("Sipco Brief"). Defendant SmartLabs, Inc. ("SmartLabs") filed a Responsive Claim Construction Brief (Doc. No. 215) ("SmartLabs Response") to which SIPCO replied (Doc. No. 225) ("Reply to SmartLabs"). The Schlage/Trane Defendants ("Schlage/Trane") also filed a Responsive Claim Construction Brief (Doc. No. 218) to which SIPCO replied (Doc. No. 227) ("Reply to Schlage/Trane"). Defendant Coulomb Technologies, Inc. ("Coulomb") also filed a Responsive Claim Construction Brief (Doc. No. 219) to which SIPCO replied (Doc. No. 226) ("Reply to Coulomb"). Also present at the Claim Construction hearing was SmartSynch, Inc. ("SmartSynch"), the last remaining defendant at the time of the hearing in *SIPCO LLC v. Energate, Inc. et al.*, 6:10-cv-533 ("the '533 action"). SmartSynch was dismissed from the '533 action after fully participating in the claim construction procedure. *See, e.g.,* '533 action (Doc. No. 176) ("SmartSynch Response"); *see also* (Doc. No. 182) ("Reply to SmartSynch"). Because SmartSynch has been dismissed from this action, the Court will only discuss its arguments if relevant to the remaining Defendants' position.

2:27-28. Figure 1 of the '511 patent, depicted below, shows an exemplary embodiment of the invention. The exemplary embodiment includes "sensors/actuators 130" integrated with transceivers 135 that transmit low-power radio-frequency ("RF") signals, transceiver/repeaters 125, site controllers 150 that manage and relay data between the transceivers and a wide area network. *Id.* at Fig. 1; *id.* at 2:47-3:39 (generally describing the preferred embodiments).

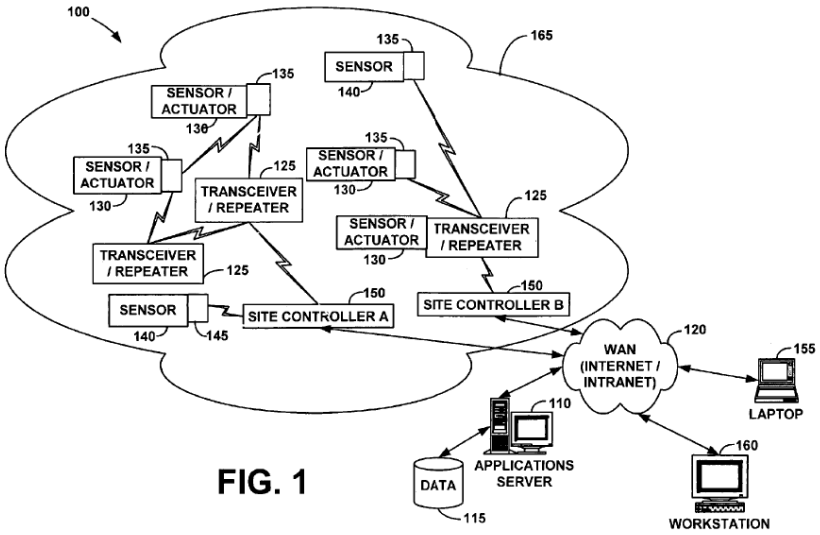

FIG. 1

Further, a computer can send various control signals to the sensor/actuator and receive sensor data transmitted from transceivers integrated into sensors/actuators in response to which the integrated transceivers 135 can transmit sensor data. *See, e.g., id.* at 9:3-14; '692 patent at Abstract. Lastly, the patents-in-suit are no strangers to litigation. Several of the disputed claim terms have been previously construed by this Court or the Eastern District of Pennsylvania. *See Sipco LLC v. Toro Co.,* Civ. No. 08-0505, 2009 WL 330969 (E.D. Pa. Feb. 11, 2009); *Sipco, LLC v. Datamatic, Ltd.,* 6:09-cv-532-LED-JDL, 2011 WL 1742669 (E.D. Tex. May 6, 2011).

CLAIM CONSTRUCTION PRINCIPLES

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). The Court examines a patent's intrinsic evidence to define the patented invention's scope. *Id.* at 1313-1314; *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). Intrinsic evidence includes the claims, the rest of the specification and the prosecution history. *Phillips*, 415 F.3d at 1312-13; *Bell Atl. Network Servs.*, 262 F.3d at 1267. The Court gives claim terms their ordinary and customary meaning as understood by one of ordinary skill in the art at the time of the invention. *Phillips*, 415 F.3d at 1312-13; *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

Claim language guides the Court's construction of claim terms. *Phillips*, 415 F.3d at 1314. "[T]he context in which a term is used in the asserted claim can be highly instructive." *Id.* Other claims, asserted and unasserted, can provide additional instruction because "terms are normally used consistently throughout the patent." *Id.* Differences among claims, such as additional limitations in dependent claims, can provide further guidance. *Id.*

"[C]laims 'must be read in view of the specification, of which they are a part.'" *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995)). "[T]he specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.'" *Id.* (quoting *Vitronics Corp.v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex. Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). In the specification, a patentee may define his own terms, give a claim term a different meaning that it would otherwise possess, or disclaim

or disavow some claim scope. *Phillips*, 415 F.3d at 1316. Although the Court generally presumes terms possess their ordinary meaning, this presumption can be overcome by statements of clear disclaimer. *See SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1343-44 (Fed. Cir. 2001). This presumption does not arise when the patentee acts as his own lexicographer. *See Irdeto Access, Inc. v. EchoStar Satellite Corp.*, 383 F.3d 1295, 1301 (Fed. Cir. 2004).

The specification may also resolve ambiguous claim terms "where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone." *Teleflex, Inc.*, 299 F.3d at 1325. For example, "[a] claim interpretation that excludes a preferred embodiment from the scope of the claim 'is rarely, if ever, correct." *Globetrotter Software, Inc. v. Elam Computer Group Inc.*, 362 F.3d 1367, 1381 (Fed. Cir. 2004) (quoting *Vitronics Corp.*, 90 F.3d at 1583). But, "[a]lthough the specification may aid the court in interpreting the meaning of disputed language in the claims, particular embodiments and examples appearing in the specification will not generally be read into the claims." *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988); *see also Phillips*, 415 F.3d at 1323.

The prosecution history is another tool to supply the proper context for claim construction because a patentee may define a term during prosecution of the patent. *Home Diagnostics Inc. v. LifeScan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004) ("As in the case of the specification, a patent applicant may define a term in prosecuting a patent"). The well-established doctrine of prosecution disclaimer "preclud[es] patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution." *Omega Eng'g Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003). The prosecution history must show that the

patentee clearly and unambiguously disclaimed or disavowed the proposed interpretation during prosecution to obtain claim allowance. *Middleton Inc. v. 3M Co.*, 311 F.3d 1384, 1388 (Fed. Cir. 2002). "Indeed, by distinguishing the claimed invention over the prior art, an applicant is indicating what the claims do not cover." *Spectrum Int'l v. Sterilite Corp.*, 164 F.3d 1372, 1378-79 (Fed. Cir. 1988) (quotation omitted). "As a basic principle of claim interpretation, prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public's reliance on definitive statements made during prosecution." *Omega Eng'g, Inc.*, 334 F.3d at 1324.

Although, "less significant than the intrinsic record in determining the legally operative meaning of claim language," the Court may rely on extrinsic evidence to "shed useful light on the relevant art." *Phillips*, 415 F.3d at 1317 (quotation omitted). Technical dictionaries and treatises may help the Court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but such sources may also provide overly broad definitions or may not be indicative of how terms are used in the patent. *Id.* at 1318. Similarly, expert testimony may aid the Court in determining the particular meaning of a term in the pertinent field, but "conclusory, unsupported assertions by experts as to the definition of a claim term are not useful." *Id.* Generally, extrinsic evidence is "less reliable than the patent and its prosecution history in determining how to read claim terms." *Id.*

The patents-in-suit may contain means-plus-function limitations that require construction. Where a claim limitation is expressed in means-plus-function language and does not recite definite structure in support of its function, the limitation is subject to 35 U.S.C. § 112 ¶ 6. *Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997). In relevant part, § 112 mandates that "such a claim limitation be construed to cover the corresponding structure . . .

described in the specification and equivalents thereof." *Id.* (citing 35 U.S.C. § 112 ¶ 6.). Accordingly, when faced with means-plus-function limitations, courts "must turn to the written description of the patent to find the structure that corresponds to the means recited in the [limitations]." *Id.*

Construing a means-plus-function limitation involves two inquiries. The first step requires "a determination of the function of the means-plus-function limitation." *Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc.*, 248 F.3d 1303, 1311 (Fed. Cir. 2001). Once a court has determined the limitation's function, "the next step is to determine the corresponding structure disclosed in the specification and equivalents thereof." *Medtronic*, 248 F.3d at 1311. A structure is corresponding "only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim." *Id.* Moreover, the focus of the corresponding structure inquiry is not merely whether a structure is capable of performing the recited function, but rather whether the corresponding structure is "clearly linked or associated with the [recited] function." *Id.*

DISCUSSION

I. Non-Means-Plus-Function Terms

a. remote[2]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
Does not require construction – entitled to plain & ordinary meaning. Alternatively, "located separately"	In a geographical location separate from a local gateway/site controller	SmartLabs agrees with the co-defendants' constructions	"far removed"

[2] The term "remote" is found in the '692 patent at claims 1, 32, 42, 49; '511 patent claims 1, 8; '893 patent claims 1, 37; and the '492 patent 1,6,8,9,11,25.

The parties appear to agree that the term "remote" connotes some degree of separateness. Beyond that, however, there is a substantial dispute among the parties regarding the proper construction of remote. The Court will address each party's arguments in turn.[3]

Schlage/Trane argues that the plain meaning of "remote" means more than merely "separate" but also encompasses a concept of "at a distance far away, far removed." MARKMAN TRANSCRIPT at 14:1-8; *see also* SCHLAGE/TRANE RESPONSE at 4 (citing MERRIAM-WEBSTER COLLEGIATE DICTIONARY (10th Ed. 2002) at 987). As a result, for Schlage/Trane, a construction of "remote" that permits a "remote device" to be "located adjacent to" another item is improper. *Id;* MARKMAN TRANSCRIPT at 14:1-8.

Although Coulomb does not disagree that remote means "far removed," MARKMAN TRANSCRIPT at 20-21, Coulomb argues that further construction is required in order to provide the proper context. The crux of Coulomb's proposal is that a "remote device" is different from a "local gateway" or "site controller." *See, e.g., id.* at 12:8-11. In support, Coulomb points to several portions of the specification that describe devices used at a distance from the gateway or the site controller. COULOMB RESPONSE at 16 (citing '692 patent at 6:15-20; Abstract; Fig. 5; '492 patent at 2:29-35; 4:18-35; '511 patent at 2:28-47; 5:57-61; 14:49-59). For Coulomb, the patents-in-suit thus describe transceivers and a host computer as "remote" while referring to the gateway as the "local" component that receives "remote" transmissions. *Id.* at 16-17.

The Court agrees with Defendants that the term "remote" should be construed; however, each of Defendants' proposed constructions improperly narrow the term "remote" by either importing limitations from the specification or by selecting a dictionary definition to

[3] SmartLabs states that it "agrees with the co-defendants' briefing of the claim term[] 'remote' . . . and joins the portions of their brief seeking construction of [this] term[]." SMARTLABS RESPONSE at 3. Because the Defendants' propose multiple competing constructions the Court will interpret SmartLabs comments as indicating its belief that "remote" should be construed.

manufacture noninfringement arguments. As an initial matter, a term should be construed consistent with its usage throughout a patent family. *See NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1293 (Fed. Cir. 2005) ("Because NTP's patents all derive from the same parent application and share many common terms, we must interpret the claims consistently across all asserted patents"). Moreover, the patents-in-suit describe a "remote device" that can vary in location, moving closer to or further away from the local gateway controller as the circumstances of the particular wireless communication system dictate. For example, the patents-in-suit describe battery operated mobile transceivers used to track individual's movement from room to room within a controlled facility. *See* '511 patent at 22:22-30; *Id.* at 7:53-54. Similarly, the '692 patent describes a sensor-transceiver assembly integrated into mobile inventory units (e.g., "package, ship, airplane, trains, and/or taxi") that are "within radio-frequency transmission and receiving range of stand-alone receiver 221." '692 patent at 16:35-56. Further, a remote device may be located close enough to a site controller such that the two may be hardwired together. '511 patent at 5:30-35. Thus, a "remote device" may be located in close proximity to or at a great distance from a site controller/gateway.

Schlage/Trane's proposal is flawed because it does not provide a point of reference for measuring "far removed." Further, Schlage/Trane relies on a dictionary definition at the expense of the plain the language of the specification. As described above, a "remote" device may be mobile and can be in close enough proximity to a site controller to permit hardwiring. *See* '511 patent at 5:30-35. This squarely contradicts Schlage/ Trane's proposal. *See Phillips*, 415 F.3d at 1321 (warning against the elevation of dictionary definitions above the plain language of the claims and specification). Accordingly, the Court declines to adopt a definition of "remote" requiring the device to be "far removed."

Coulomb's proposed construction requires a "remote" device to be "in a geographical location separate from a local gateway/site controller." First, the separate geographical location limitation is flawed for the same reasons that "far removed" is improper, i.e. a remote device can be mobile and vary in geographic locations, including in same geographic location as the locate gateway/site controller. *See, e.g.,* '511 patent at 22:1-8 (describing a remote device integrated with a vehicle diagnostics bus that "transmits [data] to a local transceiver that further transmits the [data] through a local gateway onto a WAN"); *id.* at 22:22-30 (a remote monitoring system for an assisted living community).

Furthermore, as noted above, Coulomb's primary concern is to distinguish between "remote devices" and a "gateway" or "site controller." However, the claims themselves distinguish between "remote devices" and the gateway/site controller when necessary. For example, claim 1 of the '692 recites a "remotely located device" that is separate from a "computer" that communicates with a "gateway:"

> A system for remote data collection, assembly, and storage comprising:
>
> a computer configured to execute at least one computer program that formats and stores select information for retrieval upon demand from **a remotely located device,** said computer integrated with a wide area network (WAN);
>
> at least one wireless transmitter configured to transmit select information and transmitter identification information;
>
> a plurality of relatively low-power radio-frequency (RF) transceivers dispersed geographically at defined locations configured to receive select information transmitted from at least one nearby wireless transmitter and further configured to transmit the select information, the transmitter identification information and transceiver identification information; and
>
> at least one gateway connected to the wide area network configured to receive and translate the select information, the transmitter identification information, and transceiver identification information, **said gateway further configured to farther transmit the translated information to the computer** over the WAN.

'692 patent at claim 1 (emphasis added). The plain language of the claim does not, however, distinguish between a gateway and the "remotely located device." *Cf. id.* at claim 11 ("The

system as defined in claim 1, wherein the gateway includes one selected from the group consisting of: a modem for establishing a dial-up connection with a **remote** computer . . .”). In contrast, claim 1 of the ‘511 patent clearly distinguishes between a “site controller” and a “remote device:”

> A wireless communication network adapted for use in an automated monitoring system for monitoring and controlling a plurality of remote devices via a host computer connected to a wide area network, the wireless communication networking comprising:
>
> A plurality of wireless transceivers having unique identifiers . . .
>
> A site controller in communication with at least one of the plurality of wireless transceivers, **the site controller configured to . . . identify the remote device** associated with the corresponding sensor data signal, and provide information related to the sensor data signal to the wide area network for delivery to the host computer.

‘511 patent at claim 1(emphasis added). Thus, the plain language of the claims identify when a “remote device” or a “remotely located device” is distinct from a gateway or site controller. Accordingly, the Court rejects Coulomb’s proposal to further distinguish “remote” from the gateway/site controller.

Lastly, while the specification does not require “geographically separate” or “far removed,” the above discussion makes clear that “remote” carries with it some degree of “separateness.” “Remote” devices are described as hardwired and/or communicating wirelessly. The ‘511 patent plainly discloses a system where “remote” devices communicate with a separate local gateway or site controller within wireless communication range. *See, e.g.*, ‘511 patent at Fig. 1 (depicting wireless communication devices communicating with a separate site controller); *id.* at 5:17-20 (“As illustrated in FIG. 1, one or more sensors 140 may communicate with at least one site controller 150 via a wireless transmitter 145, a wireless transceiver 135, or a wireless transceivers/repeater 125”); *id.* at 5:30-35; *id.* at 5:57-66 (“One or more site controllers 150 are configured and disposed to receive remote data transmissions from the various stand-alone

wireless transceivers/repeaters 125, integrated wireless transmitters 145, or the integrated wireless transceivers").

In conclusion, the Court finds that "remote" as used in the disputed claims should be construed as "located separately." Defendants' proposed constructions artificially limit the claims by, in the case of Schlage/Trane, attempting to force a dictionary definition that contradicts the teachings of the specification or by importing limitations from preferred embodiments into the claims.

b. "configured to"[4]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
Does not require construction– entitled to plain & ordinary meaning. Alternatively, "programmed or equipped with hardware or software to be capable of"	"programmed or equipped with hardware or software to be capable of" Or "programmed and able to" [perform the stated functions][5]	SmartLabs agrees with the co-defendants' constructions	For the asserted claims of the '692 Patent, all communications between the transceivers, repeaters, gateway and host computer must be formatted according to the message protocol (data structure) provided in the specification and as depicted in FIG. 11 of the '692 Patent. The fields and order depicted in FIG. 11 are required.

There are two essential disputes with regards to the proper construction of "configured to:" (1) whether "configured to" should be limited to a particular embodiment in the '692 patent

[4] The phrase "configured to" is found in all asserted claims in the '692 patent, '511 claims 1,8; and the '492 patent claims 1, 25.

[5] Coulomb adopted SmartSynch's proposal at the Claim Construction hearing. *See* MARKMAN TRANSCRIPT at 35:20-36:12.

as argued by Schlage/Trane and (2) whether "configured to" requires more than mere capability. For the reasons set forth below, the Court declines to limit "configured to" the particular embodiment disclosed in the '692 patent and construes "configured to" as "actually programmed or equipped with hardware or software to."

i. "configured to" is not limited to the embodiment disclosed in Fig. 11 of the '692 patent.

Schlage/Trane seeks to limit the communications "between the transceivers, repeaters, gateway and host computer" to the "message protocol" or "data structure" identified in the specification of the '692 patent. SCHLAGE/TRANE RESPONSE at 16-17. Specifically, Schlage/Trane argues that these communications must correspond to the precise fields and the particular order described in Fig. 11 because the patentee referred to the embodiment described in Fig. 11 as "the invention" of the '692 patent. *Id.* at 14. Schlage/Trane attempts to force such a limitation into the construction of the term "configured to" in only the '692 patent despite the fact that "configured to" is used in a variety of contexts throughout the claims of the '692 patent and in the '511 and '492 patents. The Court declines to limit all claims of the '692 patent to the particular message protocol described in Fig. 11 because the specification discloses alternative message structures that do not conform to the precise fields and order depicted in Fig. 11. Further, even if Schlage/Trane is correct that the specification only discloses communication via the "message protocol" of Figure 11, nothing in the specification supports forcing that limitation into a construction of "configured to."

The Federal Circuit has cautioned that the claims define the metes and bounds of the patentee's invention. *Phillips*, 415 F.3d at 1313. While the claims are interpreted in light of the specification, the Federal Circuit has consistently warned against importing limitations from the specification into the claim even where the specification only discloses a single embodiment. *Id.*

at 1323 (citing *Comark Commc'n, Inc. v. Harris Corp.,* 156 F.3d 1182, 1186-87 (Fed Cir. 1998)). Further, "[t]he patentee is free to choose a broad term and expect to obtain the full scope of its plain and ordinary meaning unless the patentee explicitly redefines the term or disavows its full scope." *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1367 (Fed. Cir. 2012). In discussing the "exacting" standard for disavowal of claim scope, the *Thorner* court explains:

> Mere criticism of a particular embodiment encompassed in the plain meaning of a claim term is not sufficient to rise to the level of clear disavowal. *Epistar Corp. v. Int'l Trade Comm'n,* 566 F.3d 1321, 1335 (Fed. Cir. 2009) (holding that even a direct criticism of a particular technique did not rise to the level of clear disavowal). In *Spine Solutions, Inc. v. Medtronic Sofamor Danek USA, Inc.*, we explained that even where a particular structure makes it "particularly difficult" to obtain certain benefits of the claimed invention, this does not rise to the level of disavowal of the structure. 620 F.3d 1305, 1315 (Fed. Cir. 2010). It is likewise not enough that the only embodiments, or all of the embodiments, contain a particular limitation. We do not read limitations from the specification into claims; we do not redefine words. Only the patentee can do that. To constitute disclaimer, there must be a clear and unmistakable disclaimer.

Thorner, 669 F.3d at 1366-67. The Federal Circuit has found such a disclaimer in certain circumstances where the patentee uses the phrase "the present invention" or "this invention" to describe a particular feature. *See Absolute Software, Inc. v. Stealth Signal, Inc.*, 659 F.3d 1121, 1136 (Fed. Cir. 2011)(collecting cases). These phrases may not be limiting where references to "the invention" are not uniform or "where other portions of the intrinsic record do not support applying the limitation to the entire patent." *Id.* For example, in *Absolute Software*, the court declined to import a limitation into the claim where a portion of specification identified the purported limitation as one of "two optional features of the 'present invention'" despite earlier references in the specification requiring the "present invention" to include both features. *Id.* at 1137.

Schlage/Trane has failed to point out with particularity any disclaimers or disavowals with regards to the term "configured to." The term "configured to" is used in a variety of

contexts that cannot be limited to the particular message protocol of Figure 11. Claim 1 uses "configured to" in at least three contexts: (1) a computer configured to execute a program, (2) various devices configured to communicate over a wireless network and (3) a gateway configured to receive and translate the information sent over the wires network and further configured to transmit the information over a wide area network:

> A system for remote data collection, assembly, and storage comprising:
> **a computer configured to execute at least one computer program** that formats and stores select information for retrieval upon demand from a remotely located device, said computer integrated with a wide area network (WAN);
> at least one wireless transmitter configured to transmit select information and transmitter identification information;
> **a plurality of relatively low-power radio-frequency (RF) transceivers dispersed geographically at defined locations configured to receive select information** transmitted from at least one nearby wireless transmitter and further configured to transmit the select information, the transmitter identification information and transceiver identification information; and
> **at least one gateway connected to the wide area network configured to receive and translate the select information**, the transmitter identification information, and transceiver identification information, **said gateway further configured to farther transmit the translated information to the computer over the WAN.**

'692 patent at claim 1 (emphasis added). At no point does Schlage/Trane precisely identify what "configured to" it is seeking construction of or how Figure 11 limits that particular claim term. Schlage/Trane's briefing simply identifies "configured to . . ." as used in the '692 patent. *See* SCHLAGE/TRANE RESPONSE at 13. At the Claim Construction Hearing, Schlage/Trane identified "a plurality of relatively low-power RF transceivers . . . configured to transmit information" and "several other similar phrases" as the element it seeks construed. MARKMAN TRANSCRIPT at 26:18-24. However, it cannot be ignored that "configured to" is used in a variety of contexts throughout the claims and the specification.

In contrast, the Federal Circuit has limited particular terms to the specific embodiments where the specification describes "the invention" as a particular embodiment of the disputed

term. In other words, there must be a "link" between the particular embodiment and the disputed term. For example, in *Verizon Services Corp.*, the court found that "localized gateway system" was limited to a particular embodiment in the specification because "[i]n the course of describing the 'present invention,' the specification then states that '[t]he gateway compresses and decompresses voice frequency communication signals and sends and receives the compressed signals in packet form via the network.'" *Verizon Services Corp. v. Vonage Holdings Corp.,* 503 F.3d 1295, 1308 (Fed. Cir. 2007) (citations omitted). Thus, the court limited "localized wireless gateway system" to "one performing compression and packetization functions at the gateway." *Id.* Similarly, in *Honeywell International*, the Federal Circuit limited the term "fuel injection system component" to "fuel filter" because the specification consistently described the "present invention" as a "fuel filter." *Honeywell Int'l, Inc. v. ITT Indus., Inc.*, 452 F.3d 1312, 1318 (Fed. Cir. 2006). Thus, as the court explained, "fuel injection system component" could only be referring to a fuel filter.

In this case, however, Schlage/Trane fails to connect the specific embodiment disclosed Figure 11 to the term "configured to." The phrase "configured to" is not expressly related to a communications protocol and limiting it to such is contradicted by both the plain language of the claims and the structure of the claims. Because Schlage/Trane fails to particularly point out any disclaimer attached to "configured to" or even what "configured to" phrase it would like so limited, the Court declines to import the limitation into the claims.

Second, even if Schlage/Trane is correct that "configured to" is tied to any communication protocol, the specification and the structure of the claims reveal that wireless devices in the '692 patent are not limited to communicating only by way of the message structure disclosed in Figure 11. For example, the specification describes transmitters communicating via

"data packets 330" which include only a "function code" and a "transmitter identification number." *Id.* at 8:45-50 ("From a substantive basis, the information conveyed includes function code, as well as, a transmitter identification number."); *see also id.* at Fig. 3A (depicting data packet 330 as including only "X-mitter I.D." and "Function Code"); *id.* at 8:1-6 ("Reference now is made to Fig. 3A, which is a block diagram that illustrates the functional components of a RF transmitter 320 . . ."). This is clearly at odds with Fig. 11 which, according to Schlage/Trane, requires all nine data fields in the precise order disclosed.

Further, nothing suggests the gateway and host computer need to communicate using the particular message protocol disclosed in Figure 11. The specification states: "Stand-alone transceiver 221 further processes and transmits the encoded data to a local gateway 210 which **translates the data packet information into TCP/IP format** for transfer across WAN 230 to server 260." '692 patent at 12:34-38. Schlage/Trane offers attorney argument that this does not alter the message structure, but merely changes the "transfer protocol." SCHLAGE/TRANE RESPONSE at 16-17. However, the plain language of the specification indicates that the **information** contained in the data packet is "translate[d]" into TCP/IP format, which need not necessarily maintain the particular order of elements disclosed in Figure 11.

In conclusion, although the specification refers to the message protocol described in Figure 11 as "the invention," the specification also describes other data packet embodiments that need not have all the components described in Figure 11 nor do they necessarily have to be in the particular order described in Figure 11. *See Absolute Software, Inc.*, 659 F.3d at 1136 (reference to "the invention" or "this invention" will not be limiting where they are not uniform or "where other portions of the intrinsic record do not support applying the limitation to the entire patent."). Further, Schlage/Trane fails to point out with particularity any disclaimers or disavowal of claim

scope specifically tied to the term "configured to." Accordingly, the Court declines to adopt Schlage/Trane's proposal.

ii. "configured to" requires more than mere capability

SIPCO argues that "configured to" "simply means the device is programmed or equipped with hardware or software to be capable of performing the function." SIPCO BRIEF at 21 (citations omitted). Further, SIPCO argues "the specification provides support by consistently using permissive-not compulsory-language: 'each of the plurality of wireless transceivers **may** be configured to receive . . . .' thus indicating the presence of a **capability**.'" *Id.* (quoting '511 patent at 3:17-18) (emphasis as in original, additional citations omitted). Further, SIPCO argues that a construction of "configured to" that requires the device to be "programmed and able to [perform the stated function]" renders "configured to" unnecessary. SIPCO REPLY TO SMARTSYNCH at 4. The Court disagrees.

The Federal Circuit's decision in *Typhoon Touch Technologies* is instructive. In *Typhoon Touch*, the court found that the element "memory for storing any of a plurality of data collection applications . . . an operating system and data" "requires that the memory is actually programmed or configured to store the data collection application." *Typhoon Touch Tech.,* 659 F.3d 1376, 1380-81 (Fed. Cir. 2011). The district court explained that the terms "memory for storing . . ." and a second term not at issue on appeal, "memory for executing . . . ," requires the memory to be actually programmed to perform the recited functions:

> Here, the structure of the "memory" and the "run-time executor" are defined according to their functions: e.g., storing data collection applications or executing data collection applications. Thus, the claim uses functional language that describes the structure of a "memory" and "run-time executor" beyond being merely "memory" and a "run-time executor." *See, e.g., Acco Brands, Inc. v. Micro Security Devices, Inc.,* 346 F.3d 1075, 1078 ("The functional language is, of course, an additional limitation in the claim.") (quoting *K–2 Corp. v. Salomon S.A.,* 191 F.3d 1356, 1363 (Fed. Cir. 1999)). Typhoon's argument attempts to

> omit any portion of a limitation after the preposition "for" from the claim language. If the claim scope extending to merely a capability "to store" or "to execute" was sought by the inventor, then the claim would have recited only "a memory" and "a runtime executor."

Typhoon Touch Technologies, Inc. v. Dell, Inc., 6:07-cv-546, 2009 WL 2243126, at *7 (E.D. Tex. July 23, 2009) *aff'd in part, rev'd in part*, 659 F.3d 1376 (Fed. Cir. 2011).

Similarly, several devices here are defined according to their function. As noted above in the context of Schlage/Trane's argument, "configured to" is used in connection with claim language pertaining to wireless transceivers/repeaters, wireless transmitters, and a site controller. For example, claim 1, 8, and 27 of '511 patent recite wireless transceivers "configured to" perform the following functions (1) "receive a sensor data signal from one of the plurality of remote devices;" (2) "transmit an original data message using a predefined wireless communication protocol;" (3) "receive the original data message transmitted by one of the other wireless transceivers;" and (4) "transmit a repeated data message." *See, e.g.*, '511 patent at claim 1. For SIPCO, the wireless transceivers need not actually be programmed or equipped with hardware to perform the functions recited above, they need only be "capable" of performing these functions. Such an interpretation would render claim 1 virtually devoid of meaning. Stripped of its "configured to" language, which for SIPCO is optional, Claim 1 recites " . . . [a] communication network comprising: a plurality of wireless transceivers having unique identifiers . . . and a site controller in communication with at least one of the plurality of wireless transceivers." This cannot be the case.

The Court finds that like "memory for . . ." in *Typhoon Touch*, the patentee chose to describe the structure of the device in functional terms. Although the specification states that

transceivers and other devices[6] "may be configured" in particular ways, the claims do not use such conditional language. Instead, the claims mandate that the devices are "configured to" perform particular functions. Interpreting "configured to" as requiring only mere capability would eliminate any meaningful limits to the claims. Accordingly, the Court finds that "configured to" means "actually programmed or equipped with hardware or software to."

c. "scalable address"[7]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
Does not require construction– entitled to plain and ordinary meaning. Alternatively, "scalable address" should be construed to mean "an address that is variable based on the size and complexity of the system."	"A sequence of bytes identifying a device, different from a transceiver or transmitter and which is not an intermediate device, at a separate geographical location from a local gateway/site controller, wherein the sequence of bytes varies between 1 and 6 bytes"	"an address in which the number of bytes in the address can be varied based on the size and complexity of the system"	"an address wherein the number of bytes changes to accommodate changes in size or complexity of the system"

Despite the four proposed constructions, there are only two essential disputes between the parties: (1) whether "scalable" requires variability in size and (2) whether "scalable" should be defined as changing the number of bytes.[8] As will be discussed in more detail below, the Court answers the first question in the affirmative and the second question in the negative.

[6] The Court recognizes that depending on the context of the particular claim, a device "configured to" perform a particular function is done so by being programmed or by being equipped with particular hardware. *See* SMARTSYNCH RESPONSE at 7-8; MARKMAN TRANSCRIPT at 34:7-35:15.

[7] "Scalable address" is found in the '492 patent at claims 1 & 25 and the '893 patent at claim 1.

[8] Coulomb's proposal replaces "address" with "a sequence of bytes identifying a device, different from a transceiver or transmitter and which is not an intermediate device, at a separate geographical location from a local gateway/site controller." However, at no point in its briefing or at the Claim Construction Hearing did Coulomb offer any justification for construing address in such a manner. Having received no argument to the contrary, the Court finds that "address" is entitled to its plain and ordinary meaning and is readily interpretable by a lay jury.

Accordingly, the Court construes "scalable address" as "an address that has a variable size based on the size and complexity of the system."

SIPCO argues that a "scalable address" need only be variable in its size or content. In support, SIPCO argues that "the specification provides a correct definition of this term, stating that the address is 'scalable' based on the 'size and complexity of the system.'" SIPCO'S BRIEF at 16 (quoting '492 patent at 9:59-61)). SIPCO also points to the '492 patent's description of Fig. 8 showing "bytes assigned by device type, manufacturer, and owner." REPLY TO SCHLAGE/TRANE at 6 (citing the '492 patent at 11:17-29). Thus, for SIPCO, the scalable address provides the system with the ability to identify unique devices based on their particular characteristics by varying the address in length as well as content. *Id.* at 6-7. By way of example, SIPCO argues that a fixed-length address, e.g., 6 bytes, is "scalable" because the bytes within the fixed-length address may be modified to "take into account both the size and complexity of the system." MARKMAN TRANSCRIPT at 64:6-12.

The Court agrees with SIPCO that a "scalable address" is one that is "scalable" based on the "size and complexity of the system." '492 patent at 9:59-61. However, SIPCO leaves out a key portion of the quotation that lends context to the "scalable" limitation: "The 'to' address 700 can indicate the intended recipient of the packet. This address can be scalable **from one to six bytes** based upon the size and complexity of the system." '492 patent at 9:59-61 (emphasis added); *id.* at 10:2-4 ("The 'to' address 700 can be scalable from one byte to six bytes depending upon the intended recipients(s)"); *id.* at 6:24-26 ("While the unique transceiver address can be varied, it is preferably a six-byte address. The length of the address can be varied as necessary given individual design constraints"). Further, the specification reinforces this understanding that scalability refers to variation in size:

> While the message indicates specific byte length for each section, only the order of the specific information within the message is constant. The byte position number in individual transmission can vary because of the scalability of the "to" address, the command byte, and the scalability of the data.

Id. at 11:1-4; *see also id.* at 10:41-42 ("The data section of a single packet can be scalable up to 109 bytes").

Furthermore, SIPCO's interpretation equates "scalable" with "variable" and conflates the parameters of scalability–i.e. the factors used to determine when to vary the size of the address—with the definition of scalable. SIPCO's suggestion that an address can be "scalable" because its content is variable eliminates all meaning of the term "scalable." For example, the "'to' address 700" must be, by its very nature, variable in content so that it can perform its function of "indicat[ing] the intended recipient of the packet" described in Figure 7. *See* '492 patent at 9:59-10:4; *id.* at 11:17-29 (describing an embodiment where the "to" address is 6 bytes and identifying the unique transceiver); *id.* at Fig. 8 (showing a "to addr. (1-6)" representative of 1 to 6 bytes). Thus, the Court finds that "scalable" refers to the ability to vary in size.

Moreover, the Court finds that a scalable address need not be measured in "bytes" but can be measured in any other unit provided that the scalable address remains variable in size. Schlage/Trane argues that limiting scalable to the number of bytes is required to prevent SIPCO from arguing content differences rather than differences in size. MARKMAN TRANSCRIPT at 66:9-16. Further, Schlage/Trane and Coulomb argue that the specification only describes scalability in terms of "bytes." *Id.* at 66:17-21; COULOMB RESPONSE at 22.

While Schlage/Trane and, to some extent Coulomb, are correct that the '492 patent discuses scalability in terms of bytes, the Court declines to limit "scalable address" to varying the number of bytes. The specification does not require the address to be in "byte" form. *See* '492 patent at 6:10-26 (discussing the unique transceiver address, concluding "[w]hile the unique

transceiver address can be varied, it is preferably a six-byte address. The length of the address can be varied as necessary given individual design constraints"). Lastly, given the Court's construction limiting scalability to variation of the size of the to address, the Court sees no need to add additional limitations to ensure SIPCO's compliance with the construction as suggested by Schlage/Trane. According, the Court declines to limit "scalable address" to bytes.

For the reasons stated above, the Court construes "scalable address" as "an address that has a variable size based on the size and complexity of the system."

d. "scalable message"[9]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
Does not require construction – entitled to plain & ordinary meaning. Alternatively, "a message in which the number of bits in the message can be varied."	No argument[10]	a message in which the number of bytes in the message can be varied	Consistent with "scalable address" construction above

The parties' dispute is much the same as discussed above in the context of "scalable address." For the same reasons discussed above, the Court finds that "scalable" refers to variation in the size of the message. *See, e.g.,* '492 patent at 10:37-42 ("The data section 770 may contain data as requested by a specific command . . . . The data section of a single packet can be scalable up to 109 bytes."). However, the parties dispute whether the proper construction refers to "bits," as argued by SIPCO, or "bytes" as argued by SmartLabs and Schlage/Trane. Although the specification often describes scalability and the "data" of the message in terms of

[9] The term "scalable message" is found in the '492 patent at claim 1, 8, & 25 and the '893 patent at claim 1. With regards to claim 8 of the '492 patent, the Court construes "scalable message" in the context of "scalable data value comprising a scalable message." *See infra.*

[10] Coulomb's argument regarding "scalable data value comprising a scalable message" is addressed below.

"bytes," the Court finds that the plain and ordinary meaning of "scalable message" interpreted in light of the full disclosure of the '492 patent need does not require reference to a particular unit of measure. As noted above, all that is required by the plain and ordinary meaning of the claims is scalability of size. Accordingly, the Court construes "scalable message" as a "message in which the size of the message can be varied."

e. "scalable data value comprising a scalable message"[11]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
Does not require construction– entitled to plain and ordinary meaning. Alternatively, "scalable data value" may be construed to mean "a data value comprising a message, in which the number of bits in the message can be varied"	The claim term "scalable data value comprising a scalable message" is indefinite. Alternatively, if rewritten, the claim term should be construed as a "message that can be communicated by breaking the message into packets, each packet having a variable data field length."	No argument[12]	Consistent with "scalable address" construction above.

[11] Although the parties indicated in their joint claim construction statement that "scalable data value" is found in claims 1,8, 14, and 19 of the '492 patent, it is only found in claim 8. Claims 1, 14, and 19 recite a "data value" not a "scalable data value."

[12] In the parties joint claim construction chart, SmartLabs included the following statement:

> SmartLabs and SIPCO have not requested a construction of "scalable data value." In any event, Claim 8 recites a "scalable data value comprising a scalable message"; thus, the construction of scalable data value should be the same as the construction of scalable message. Claim 1 does not expressly recite the term "scalable data value." Claims 14 and 19 also do not expressly recite "scalable data value" and, in any event, are not asserted against SmartLabs.

However, SmartLabs provided no argument in its briefs or at the hearing arguing the construction of "scalable data value."

The parties' dispute is much the same as discussed above in the context of "scalable address." For the same reasons discussed above, the Court finds that "scalable" refers to variation in the size of the data value. Coulomb also offers conclusory argument that the term "scalable data value comprising a scalable message" is indefinite "because the specification teaches the opposite, which is that a single message can be broken down into different values being carried by a sequence of packets." COULOMB RESPONSE at 22 (citing '492 patent at Fig.7; *id.* at 9:50-11:56).

Even if Coulomb is correct that the specification teaches that a single message can be broken down into multiple packets, the specification also clearly contemplates a message sent as one data packet that is variable in length. *See* '492 patent at 10:37-46 ("The data 770 section may contain data as requested by a specific command. ***The data section of a single packet can be scalable up to 109 bytes. When the requested data exceeds 109 bytes . . . ."). By way of example, Figure 9 and the accompanying description depict two example messages sent as one "packet." *See* '492 patent at Fig. 9; *id.* at 11:37-44 (describing the contents of "message 920" as "A000123456"); *compare id.* at 11:54 ("message 930") *with id.* at Fig. 9 (showing contents of data 930 as "A5"). Thus, the Court declines to find the phrase "scalable data value comprising a scalable message" indefinite. *See Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1348 (Fed. Cir. 2005) (finding that close questions of indefiniteness are properly resolved in favor of the patentee).

For the reasons discussed above, the Court declines to include reference to "bits" or "bytes" and consistent with its construction of "scalable message" and "scalable address," construes "scalable data value comprising a scalable message" as "a data value comprising a message in which the size of the message is varied."

f. "sensor"[13]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
Does not require construction – entitled to plain & ordinary meaning. Alternatively, "an equipment, program, or device that monitors or measures the state or status of a parameter or condition"	"Device for measuring the physical or operational condition of a remote device"	SmartLabs agrees with the co-defendants' constructions	"a device that responds to a physical stimulus, such as heat, light, sound, pressure, magnetism, or a particular motion, and transmits a non-physical signal, such as an electrical signal"

The essential dispute between the parties centers on what a "sensor" monitors. SIPCO argues that a sensor may monitor "the state or status of a parameter or condition" which encompasses both physical and non-physical stimuli, while Schlage/Trane and Coulomb would limit these parameters or conditions to physical stimuli. For the reasons set forth below, the Court construes "sensor" as "an equipment, program, or device that monitors or measures the state or status of a parameter or condition and provides information concerning the parameter or condition."

Schlage/Trane argues that SIPCO's proposed construction is overly broad because it encompasses "anything that 'measures.'" SCHLAGE/TRANE RESPONSE at 10. In contrast, Schlage/Trane begins with a dictionary definition of sensor: "A device that responds to a physical stimulus, as heat, light, sound, pressure, magnetism, or a particular motion and *transmits a resulting impulse* (as for measurement or operating a control)." *Id.* (quoting MERRIAM-WEBSTER COLLEGIATE DICTIONARY (Tenth Ed. 2002) at 1063 (Doc. No. 218-6) (emphasis added by Schlage/Trane). Schlage/Trane further argues that because the field of the

[13] The term "sensor" is found in the '692 patent at claims 4, 18, 23, 24, 32, 43, 44, 49, & 60; the '492 patent at claim 2, 15, & 20; and the '893 patent at claim 2 & 10.

invention is "Wireless electronic networks," the signal transmitted is an electrical signal. *Id.* at 10-11. Thus, Schlage/Trane emphasizes that a sensor must measure a physical stimulus and transform that stimulus into an electrical signal. *See, e.g.,* MARKMAN TRANSCRIPT at 74:12-14; *id.* at 75:7-12 (arguing that sensor must be limited to "physical stimulus"); *id.* at 75:16-18 ("as long as it all has a physical stimulus in, electrical or some other signal out, we would agree").

Schlage/Trane's argument is fundamentally flawed because Schlage/Trane roots its proposed construction in a dictionary definition rather than first looking to the specification. This is in direct conflict with well-settled claim construction doctrine established in *Phillips*. *See Phillips*, 415 F.3d at 1313 (finding that while extrinsic evidence such as dictionary definitions "can shed useful light on the relevant art" it is "less significant than the intrinsic record in determining the legally operative meaning of claim language"). The *Phillips* court explained:

> The main problem with elevating the dictionary to such prominence is that it focuses the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent. Properly viewed, the "ordinary meaning" of a claim term is its meaning to the ordinary artisan after reading the entire patent. Yet heavy reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the term in the abstract, out of its particular context, which is the specification.

Phillips, 415 F.3d at 1321. That is precisely what Schlage/Trane would have the Court do. Schlage/Trane first looks to the dictionary definition then pronounces that it fits the specification. SCHLAGE/TRANE RESPONSE at 10-11. Coulomb similarly argues that "sensor" must be limited to physical stimulus and cannot encompass "network conditions;" however Coulomb provides no supportive intrinsic or extrinsic evidence. *See* COULOMB RESPONSE at 21.

The Court finds that a person having ordinary skill in the art reading the claims in light of the specification would understand that a "sensor" may measure "non-physical" parameters. The plain and ordinary meaning of "sensor" is a device that monitors or measures parameters or

conditions and provides information concerning the parameter and condition. The patents-in-suit contemplate a wide variety of sensors tailored for the specific needs of automated monitoring systems. *See* '511 patent at 8:3-6 ("automated monitoring system 100 may be used in a variety of environments to monitor and/or control any of a variety of types of sensors 140"); *id.* at 6:47-49 ("the characteristics of sensor 130 may vary depending on the environment in which automated monitoring system 100 is implemented"). The patents give several examples of devices that incorporate sensors including smoke detectors, utility meters, carbon monoxide detectors, door position sensors, lighting, thermostats, and a personal security system controller. '511 patent at 6:49-52 ("For example, the sensor 130 may be a state device such as a smoke alarm, a thermometer, a utility meter, a personal security system controller, or any other sensor"); *id.* at 9:35-37 (carbon monoxide detector and door position sensor); *id.* at 17:16-22 (smoke detector, utility meter, and thermostat); '692 patent at 5:61-63 (smoke detector, utility meter, and thermostat); *Id.* at 13:7-13 (sensor attached to a rain gauge); *id.* at 13:31-39 (vehicle position sensor); *id.* at 18:59-19:4 (describing various "environmental variables" that may be monitored including light levels, water volume, smoke emissions).

Other than a dictionary definition, Defendants point to no intrinsic or extrinsic evidence suggesting that the patentee intended to limit the parameters that a sensor monitors to only physical phenomena. The intrinsic evidence is actually to the contrary with a wide variety of sensors discussed in the patents-in-suit and the patentee's repeated assertions that the automated monitoring systems are designed to monitor any of a wide variety of sensors. Moreover, the '692 patent discloses an automotive diagnostics monitoring system that utilizes a sensor connected to a vehicle diagnostics bus in an automobile. *See* '692 patent at Fig. 7; '692 patent at 12:74-52 ("Remote automotive diagnostics interface unit 710 consists of sensor 712 integrated

with the vehicle diagnostics data bus 711, and transmitter 714 wherein contents of the vehicle diagnostics can be downloaded upon a control signal to sensor 712 from a remote location serviced by local gateway."). In response to a command signal, the sensor accesses the contents of the vehicle diagnostics bus and uploads the information through the remote automotive diagnostic monitoring system. *Id.; id.* at 12:52-62 ("In this manner, a vehicle in need of service but still capable of accessing the vehicle diagnostics codes can be remotely diagnosed by uploading the information though the remote automotive diagnostics monitoring system 700…."). Thus, the sensor monitors the vehicle diagnostics codes created by the vehicle, but may not be directly monitoring the physical stimulus those codes are referring to.

Similarly, the patents-in-suit describe sensors such as "utility meters" that monitor electricity usage. The '692 patent describes a "remote utility meter subsystem 610" which consists of a "utility meter 613 and an appropriately integrated sensor 612 wherein the current utility meter operational status and current utility meter usage total is transmitted via functional codes along with a transceiver identification code in a manner previously described by transmitter 614 to stand-alone transceiver 221." '692 patent at 12:27-33. Thus, the specification discloses "sensors" that do not directly monitor physical phenomenon, but may monitor other parameters associated with devices such as whether a motor vehicle's diagnostic bus is registering diagnostic codes or the amount of electricity usage measured by a utility meter.

The Court finds that a person having ordinary skill in the art would not limit "sensors" to devices that only monitor physical phenomenon. Moreover, Schlage/Trane argues that the "sensor" must output an electrical signal. *See* SCHLAGE/TRANE RESPONSE at 10-11. However, Schlage/Trane fails to identify any intrinsic or extrinsic evidence that would suggest, let alone require, the Court to construe "sensor" as transmitting an electrical signal. Moreover, as SIPCO

points out, "the claims themselves indicate when a sensor is to produce a signal, and the type of the signal." SIPCO BRIEF at 15; *compare* '692 patent at claim 32 ("at least one sensor adapted to generate an electrical signal in response to a physical condition") *with id.* at claim 4 ("the system defined in claim 1, wherein each wireless transmitter is integrated with a sensor"). Thus, the plain language of the claims dictate when a "sensor" responds to physical conditions and/or generates an electrical output.

The patents-in-suit disclose a broad assortment of "sensors" that monitor a variety of parameters. The specification does not limit these sensors to measuring physical phenomena and outputting electrical signals. The Defendants provide no evidence—either intrinsic or extrinsic—from which the Court can conclude that the patentee intended to limit sensors in such a way. Further, Defendants' proposal is belied by the claim language itself, which dictates only certain sensors are configured to translate physical conditions to electrical signals. Thus, the Court construes "sensor" as "an equipment, program, or device that monitors or measures the state or status of a parameter or condition and provides information concerning the parameter or condition."

g. "sensor data signal"[14]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
Does not require construction – entitled to plain & ordinary meaning. Alternatively, "a signal including data from a sensor."	"Measured physical or operational condition of a device different from a transceiver or transmitter and which is not an intermediate device"	SmartLabs agrees with the co-defendants' constructions	"a data signal sent from a sensor"

[14] The term "sensor data signal" is found in the '692 patent at claims 4, 18, 23, 24, 32, 43, 44, 49, & 60; the '492 patent at claim 2, 15, & 20; and the '893 patent at claim 2 & 10.

In light of the discussion above in regards to "sensor," the Court declines to construe "sensor data signal." Coulomb simply states "'sensor data signal' means 'measured or physical or operational condition of a device different from a transceiver or transmitter which is not an intermediate device'" followed by a string cite. COULOMB RESPONSE at 20. Other than the string cite, Coulomb provides no argument or explanation for its position that "sensor data signal" should be limited to "a device different from a transceiver or transmitter and which is not an intermediate device." *See id;* MARKMAN TRANSCRIPT at 83:6-84:19 (affording the parties the opportunity to argue their proposed constructions of "sensor data signal). Because Coulomb's proposal adds extraneous limitations to the claims without argument or explanation, the Court declines to adopt it. In light of the absence of briefing and argument on this term, the Court declines to construe "sensor data signal."

h. "repeaters"

SIPCO	Coulomb	SmartLabs	Schlage/Trane
two-way wireless communication devices that operate in the manner recited in the claims	The term repeaters may be construed as "intermediate transceivers, as opposed to remote transceivers," or "intermediate communication devices that relay over the air signals to/from remote devices and a site controller"	SmartLabs agrees with the co-defendants' constructions	"wireless devices that can receive a message and resend an identical message, but are not capable of generating or sending original messages"

The essential dispute between the parties is twofold: (1) whether a repeater is an intermediate wireless device and (2) whether the repeater may send original data messages. SIPCO argues that this Court should adopt the construction reached in the *Toro* case: "two-way wireless communication devices that operate in the manner recited in the claims." Since, as a

practical matter, all claim terms "operate in the manner recited in the claims," SIPCO essentially argues that the Court should construe "repeaters" as "two-way wireless communication devices." This cannot be the case. For the reasons set forth below, the Court construes "repeaters" as "wireless devices that can receive the original data messages and resend repeated data messages but do not send original data messages of a sensor."

The plain language of the claims distinguishes between "transceivers" that may originate data messages and "repeaters" that "repeat" the original data message but may not create original data messages of their own. Claim 1 of the '511 patent recites a wireless communication network comprising "a plurality of wireless transceivers" that can transmit both "original data messages" **and** "repeated data messages:"

> A wireless communication network adapted for use in an automated monitoring system for monitoring and controlling a plurality of remote devices via a host computer connected to a wide area network, the wireless communication network comprising:
>
> a plurality of wireless transceivers having unique identifiers, each of the plurality of wireless transceivers configured to receive a sensor data signal from one of the plurality of remote devices and transmit an original data message using a predefined wireless communication protocol, the original data message comprising the corresponding unique identifier and sensor data signal, and further **configured to receive the original data message transmitted by one of the other wireless transceivers and transmit a repeated data message using the predefined communication protocol**, the repeated data message including the sensor data signal and the corresponding unique identifier; and
>
> a site controller in communication with at least one of the plurality of wireless transceivers, the site controller configured to receive the original data messages and the repeated data messages, identify the remote device associated with the corresponding sensor data signal, and provide information related to the sensor data signal to the wide area network for delivery to the host computer.

'511 patent at claim 1 (emphasis added). Dependent Claim 2 of the '511 patent recites a plurality of "repeaters" in communication with the transceivers of claim 1, where the repeaters are configured to perform the repeating function of the transceiver:

> The wireless communication network of claim 1, further comprising a plurality of repeaters having unique identifiers, each of the plurality of repeaters in

> communication with at least one of the plurality of wireless transceivers and **configured to receive the original data message transmitted by the at least one of the plurality of wireless transceivers and transmit a repeated data message using the predefined communication protocol**, the repeated data message including the sensor data signal from the original data message and the unique identifier corresponding to the repeater.

'511 patent at Claim 2 (emphasis added). Because the only difference between the repeater and the transceiver recited in claims 1 and 2 is the transceiver's ability to originate messages, there is a strong presumption that a repeater cannot also generate an original data message.

Limiting "repeaters" to devices that do not send original data messages is supported by the specification. SIPCO argues that the patent teaches "most devices [disclosed in the patent] are capable of both generating an original data message **and** a repeated data message in order to provide a more robust, self-healing network." SIPCO BRIEF at 12 (citing '511 patent at 5:3-11). The portion SIPCO relies on states: "By way of example, one of the plurality of possible communication paths may consist of a wireless connection from site controller 150 to a wireless communication device associated with the specific sensor/actuator 130. Another possible communication path may consist of a wireless connection from site controller 150 to an intermediate wireless communication device and then to the wireless communication device associated with the specific sensor/actuator." This description offers little support for the notion that "repeaters" may originate data messages; it merely indicates that the patents-in-suit disclose a wireless network with multiple communication paths.

Further, read in context with the Summary of the Invention, it becomes apparent that the "intermediate wireless communication device" that connects the site controller 150 to "the wireless communication device associated with the specific sensor/actuator" in the passage cited by SIPCO is, in fact, is a "repeater." The Summary of the Invention reads: "[a]dditional communication devices, such as wireless **repeaters**, may relay information between wireless

transceivers disposed in connection with the sensors and/or actuators and the site controller." '511 patent at 2:45-47 (emphasis added); *compare id. with* '511 patent at 5:3-11 ("Another possible communication path may consist of a wireless connection from site controller 150 to **an intermediate wireless communication device** and then to the wireless communication device associated with the specific sensor/actuator") (emphasis added). Moreover, the specification contemplates a system where messages are originated on devices other than "repeaters" and target either a transceiver or a separate repeater on multiple different communication paths:

> If the intended recipient is the integrated transceiver 135, the microcontroller 215 then prepares the appropriate response as discussed below. This response may include data from the sensor 140. If the intended recipient is the repeater, the microcontroller 215 then prepares the message **to be repeated onto the intended recipient** according to the message protocol discussed below." '511 patent at 7:25-28 (noting that a repeater is distinct from a transceiver).

'511 patent at 7:22-28 (emphasis added). The specification goes on to describe the multiple communication paths of the wireless monitoring system:

> By way of example, one of the plurality of possible communication paths may consist of a wireless connection from site controller 150 to a wireless communication device associated with the specific sensor/actuator 130. Another possible communication path may consist of a wireless connection from site controller 150 **to an intermediate wireless communication device** and then to the wireless communication device associated with the specific sensor/actuator 130. **Further communication paths may include multiple intermediate wireless communication devices in the wireless connection between site controller 150 and the wireless communication device associated with the specific sensor/actuator 130**. In this manner, site controller 150 may communicate with sensors/actuators 130 and/or sensors 140 that are located a greater distance from the site controller 150 **by having messages repeated by successive wireless communication devices along one of the communication paths**.

'511 patent at 10:32-49 (emphasis added). Thus, a device may send an "original data message" over the multiple communication paths to be repeated by repeaters however a repeater may only "repeat" the message to its intended recipient. *See also* '511 patent at 14:55-58 ("during normal communication, the repeater 125 may have two functions: repeating messages (including

repeating upstream messages) and repeating downstream messages"); *id.* at 15:25-30 (explaining that emergency messages are transmitted upstream and "[u]nlike normal communications, emergency messages are sent unsolicited from the integrated transceiver 135 to the site controller 150").[15]

Furthermore, the specification recognizes a distinction between "transceiver 135" and "transceiver/repeater 125" although both may perform "repeating" functions. *See* '511 patent at 15:14-24 (noting that the command "load upstream addresses" from the site controller "initiates a transceiver functioning as a repeater 125"); *id.* at 5:53-56 (noting that a data message may be "repeated through either a wireless transceiver/repeater 125 or a wireless transceivers 135"); *id.* at 7:8-10 ("Transceivers 135 that function in automated monitoring system 100 as both a repeater and an integrated transceiver have two unique addresses").

Accordingly, the Court construes "repeaters" as "wireless devices that can receive the original data messages and resend repeated data messages but do not send the original data messages."

i. "repeated data message [including the sensor data signal and the corresponding unique identifier]"[16]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
the repeated data message being a data message transmitted by a wireless transceiver that receives an original data message from one of the other	The term "repeated data message" means a "message that includes information about the physical or operational condition of a device, and at least one of the	SmartLabs agrees with the co-defendants' constructions	"a message that is identical to the original data message"

[15] The Court notes that while the repeater cannot originate data messages, it may "modify the message depending on the stream direction." '511 patent at 14:63-65; *see also id.* at 14:55 – 15:41 (explaining use of the repeaters to send messages upstream or downstream).

[16] The term "repeated data message including the sensor data signal and the corresponding unique identifier" is found in the '511 patent at claims 2 & 9.

wireless transceivers and includes: (a) the corresponding unique identifier of the wireless transceiver that sent the original data message; and (b) the sensor data signal of the original data message	identification number of that device and the identification number of the repeater"		

The parties advance three very different constructions; however, for the reasons stated below the Court declines to adopt any of these constructions and finds that no construction is necessary. As an initial matter, although SIPCO's proposed construction appears complex, SIPCO advocates that the Court "need look no further than the claim language itself to determine the meaning of 'repeated data message' as it appears in claim 1." SIPCO BRIEF at 12. The Court agrees with SIPCO that the claims define the repeated data message.

In support of its proposal that "a repeated data message" is "a message that is identical to the original message," Schlage/Trane relies on a portion of Figure 7 of the '511 patent that states: "Note: Additional Transceiver Re-Broadcasts do not change the message. The messages are simply received and re-broadcast." *See* '511 patent at Fig. 7. Even if Schlage/Trane is correct that Figure 7 shows a message that is "re-broadcast" completely unchanged from the original message, the specification clearly contemplates modified repeated messages. For example, after discussing the embodiment of the message structure in Figure 7, the specification discusses the function of the "repeater 125." Specifically, the specification states "the repeater 125 may modify the message depending upon the stream direction." '511 patent at 14:63-34. Further, Figure 9 shows "an example of the structure for the data field 570 (FIG. 5) of an upstream message." *Id.* at 15:8-9; *id.* at Fig. 9; *id.* at Fig. 5(showing general message structure including

data field 570). The data field 570 may include a "Repeaters Retry Counters 920" that may "indicate the number of retries by each repeater in the upstream." *Id.* at 15:11-12. It follows that the repeaters may modify the Repeater Retry Counters such that the data field 570 reflects the number of retries by the repeater as it the message is sent upstream.

Lastly, the "data field" in Figure 7 that Schlage/Trane assumes is unmodified is the same as data field 570, which the specification teaches **can** be modified by the repeater. *See* '511 patent at 14:18-19 ("Fig. 7 illustrates three same messages using the open data packet protocol described above"); *id.* at Fig. 7 (showing sample messages including "data"); *id.* at 12:11-13 ("Fig. 5 sets forth one embodiment of a message structure for the data packet protocol of the present invention"); *id.* at 12:13-19 (describing the message protocol as including a "data 570"); *id.* at Fig. 5 (depicting a "data 570"). Thus, a repeated data message need not be identical to the original data message.

Coulomb would construe the entire phrase "repeated data message including the sensor data signal and the corresponding unique identifier" as "a message that includes information about the physical or operational condition of a device and at least one of the identification of the sensor or the identification number of the repeater." *See* COULOMB RESPONSE at 19-20. Having already addressed the parties' disputes regarding "sensor data signal" above, the Court sees no further need to reconstrue the term in reference to the "repeated data message." Thus, the only addition Coulomb seeks to make is to include "at least one of the identification number of the sensor or the identification number of the repeater." Thus, Coulomb disputes what the "corresponding unique identifier" is referring to. The Court finds that the claim language speaks for itself. Claim 2 recites:

> The wireless communication network of claim 1, further comprising a plurality of repeaters having unique identifiers, each of the plurality of repeaters in

communication with at least one of the plurality of wireless transceivers and configured to receive the original data message transmitted by the at least one of the plurality of wireless transceivers and transmit a repeated data message using the predefined communication protocol, the repeated data message including the sensor data signal from the original data message and the unique identifier corresponding to the repeater.

'511 patent at claim 2 (emphasis added). Thus, a repeated data message is a message transmitted from the repeater containing the sensor data signal from the original data message and the unique identifier corresponding to the repeater. Having resolved the claim scope dispute between the parties, the Court finds no construction necessary. *See O2 Micro International Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008).

j. "gateway"[17]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
"equipment, program and/or device capable of converting and further communicating information"	"A computer geographically located apart from repeaters of over the air signals and a host computer and that interfaces those repeaters with the host computer via an Internet-like network" or "a device that manages and relays data between the wireless transceivers and the wide area network"[18]	SmartLabs agrees with the co-defendants' constructions	No argument

[17] The term "gateway" is used in the '692 patent at claim 1, 2, 7, 10, 18, 24, 32, 33, 35, 42, 44, 45, 46, 49, & 60.

[18] Coulomb initially proposed "a computer geographically located apart from repeaters of over the air signals and a host computer and that interfaces those repeaters with the host computer via an Internet-like network" for "gateway" and "site controller." However, Coulomb agreed with the Court's construction for "site controller" and argued that that construction should also apply to "gateway." MARKMAN TRANSCRIPT at 103:11-13 ("we agree with Your Honor's definition of site controller, and we believe that definition should be used for gateway").

This Court previously construed "gateway" in the '692 patent as "equipment, program, and/or device capable of converting and further communicating information." *SIPCO, LLC v. Datamatic, Ltd.*, 6:09-cv-532, 2011 WL 1742669, at *9 (E.D. Tex. May 6, 2011). Coulomb argues that the "site controller" of the '511 patent is identical to the "gateway" of the '692 patent and that the Court's previous construction of "gateway" is flawed because it fails to "properly describe the nature of the 'interfacing' between the wireless transceivers and the network and because any general purpose computer" can meet this construction. COULOMB RESPONSE at 17-18; *see also* MARKMAN TRANSCRIPT at 96:5-8.

Specifically, Coulomb argues that "gateway" is essentially "a passage between one set of devices . . . an interface between a set of transmitters and a computer." MARKMAN TRANSCRIPT at 96:14-19. Further, Coulomb emphasizes that a "gateway" is not just another remote device. *Id.* at 97:1-6. The Court sees no reason to deviate from its previous construction; particularly where Coulomb seeks to add elements "repeaters" and "host computer" that are not found in any of the '692 claims. As the Court previously stated in *Datamatic*,

> . . . "gateway" is defined in the claims. The '692 [patent] claims "at least one gateway ... configured to receive and translate ... information" wherein the "said gateway [is] further configured to farther transmit" the information. '692 [patent] at 18:62–67. The specification reinforces the same meaning by describing the claimed gateways as receiving and converting information and further transmitting that information via the wide area network. *See e.g.*, '692 [patent] at 6:15-30.

SIPCO, LLC v. Datamatic, Ltd., 2011 WL 1742669, at *9. Thus, the Court construes "gateway" as "equipment, program, and/or device capable of converting and further communicating information."

k. "site controller"[19]

[19] The term "site controller" is used in the '511 patent at claims 1 & 3.

SIPCO	Coulomb	SmartLabs	Schlage/Trane
"a device that manages and relays data between the wireless transceivers and the wide area network "	"a device that manages and relays data between the wireless transceivers and the wide area network" [20]	An electronic control device receiving information wirelessly from at least one of the plurality of wireless transceivers	No argument

i. "site controller" is different from a "gateway"

Coulomb argues that site controller and gateway should be construed the same because Figures 1 and 3 of the '511 patent depicting "site controller 150" are identical to Figures 2 and 5 of the '692 patent depicting "local gateway 210." COULOMB RESPONSE at 17-18. Coulomb further argues that the specifications provide nearly identical descriptions of the two components. *Compare* '692 patent at 6:15-24 (describing gateway) *with* '511 patent at 5:56-64 (describing site controller.). There is a common sense presumption that different words or phrases used in claims have different scopes. *See Nystrom v. Trex Co., Inc.*, 424 F.3d 1136, 1143 (Fed. Cir. 2005) (citing *Tandon Corp. v. ITC*, 831 F.3d 1017, 1023 (Fed. Cir. 1987)) ("When different words or phrases are used in separate claims, a difference in meaning is presumed."). While "site controller" and "gateway" are described and depicted in a similar fashion in '692 patent and the '511 patent, the claims differ substantially. For example, the "site controller" of the '511 patent must identify the remote device whereas the "gateway" must translate information. *Compare* '511 patent at 23:39-46 (site controller) *with* '692 patent at 18:62-67 (gateway). Accordingly, the Court declines to hold that the two terms are interchangeable.

[20] Coulomb initially proposed "a computer geographically located apart from repeaters of over the air signals and a host computer and that interfaces those repeaters with the host computer via an Internet-like network" for "gateway" and "site controller." However, Coulomb agreed with the Court's construction for "site controller" and argued that construction should also apply to "gateway." MARKMAN TRANSCRIPT at 103:11-13 ("we agree with Your Honor's definition of site controller, and we believe that definition should be used for gateway").

ii. "site controller" construction

The essential dispute between the parties is whether the "site controller" must receive information wirelessly from the at least one wireless transceiver. *See* SMARTLABS RESPONSE at 10-11; MARKMAN TRANSCRIPT at 98:3-9. Specifically, SmartLabs argues that claim 1 requires the site controller to receive wireless transmissions because it is recited as part of a "wireless communication network" where transceivers are sending original data messages using "a predefined wireless communication protocol" that are received by the site controller. SMARTLABS RESPONSE at 10; MARKMAN TRANSCRIPT at 98:10-99:5. Given the Court's construction of "configured to" above, the Court sees no need to add the additional requirements advocated by SmartLabs. For example, incorporating the Court's construction of "configured to," claim 1 requires a site controller actually programmed or equipped with hardware to receive the original data messages transmitted by the wireless transceivers using the predefined wireless communications protocol. *See* '511 patent at claim 1. Further, the specification makes clear that in certain situations, the site controller may communicate via wired transmissions. '511 patent at 5:30-35. While the Court finds that the certain site controller limitations are clear from the face of the claims, the Court agrees that some construction is necessary to shed light on the meaning of the term.

SIPCO's proposal and the *Toro* court's construction find support in the specification. The specification states that the site controller "may manage communications between the wireless communication network and a host computer connected to a WAN." '511 patent at 3:26-29. Moreover, as the *Toro* court explained:

> The written description provides that the site controller, in one possible embodiment: "acts as communications master" (['511 patent at 15:50]); "monitors the operational status of the wireless communication devices" ([*id.* at 15:55-56]); "orchestrates communications with the wireless communication devices" ([*id.* at

> 15:58-59]); "maintains current databases of information regarding the automated monitoring system" ([*id.* at 15:60-61]); "controls communications with the applications server" ([*id.* at 16:1-2]); "maps all of the wireless communication devices to learn their unique addresses and communication paths" ([*id.* at 16:30-34]); and "to facilitate communications with the applications server, ... maintains database files." ([*id.* at 17:36–38]).

SIPCO LLC v. Toro Co., Civ. No. 08-0505, 2009 WL 330969, at *14 (E.D. Pa. Feb. 11, 2009). Accordingly, the Court construes "site controller" as "a device that manages and relays data between the wireless transceivers and the wide area network."

l. "relatively low power"/ "low power"[21]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
Power having limited transmission range	Transmission power of about 1.5 milliwatts	SmartLabs agrees with the co-defendants' constructions	Indefinite

There are two essential disputes between the parties: (1) whether "low power" and "relatively low power" should be construed to mean the same thing and (2) whether "low power" corresponds to a specific mathematical range.

With regard to the first dispute, the Court previously found that because "low power" and "relatively low power" were used interchangeably throughout the patent, they should be afforded the same construction. *See Sipco, LLC v. Datamatic, Ltd.*, 6:09-cv-532-LED-JDL, 2011 WL 1742669, at *4. (E.D. Tex. May 6, 2011). Specifically, the Court relied on the fact that the parties "essentially incorporate[d] the same arguments in support of their positions regarding 'low power' and 'relatively low power" and the specification's discussion of "relatively low-power transceivers communicating with stand-alone transceivers which may transmit an

[21] The term "relatively low power" is found in claim 1 of the '692 patent and "low power" is found in claim 42 of the '692 patent.

outgoing 'low power.'" *Id.* The Court is not persuaded it should disturb its previous construction.[22]

In support of its construction that "low power" means "transmission power of about 1.5 milliwatts," Coulomb makes two arguments. First, Coulomb argues that because the patentee distinguished the invention from prior art "satellite transmitter or terrestrial cellular networks," "the scope of the term 'low power' does not include power exceeding that used in cellular communications (a person of ordinary skill in the art would recognize that satellite communications require higher transmission power)." COULOMB RESPONSE at 23-24. This is not surprising given SIPCO's expert found the same. *See* DECLARATION OF DR. EDWARD KNIGHTLY (Doc. No. 202-13) ("Knightly Decl.") at ¶¶ 9-10 (noting a person having ordinary skill in the art would understand "relatively low power" as "in comparison to a higher power, such as a power sufficient for satellite communications."); *see also* EXHIBIT D COULOMB RESPONSE, "'692 PATENT HISTORY," (Doc. No. 219-4) ("'692 PATENT HISTORY") at 120-121 (distinguishing the prior art "satellite transmitter or terrestrial cellular networks" with the inventions' "system configured for low-power radio frequency transmissions").

Furthermore, this is consistent with the Court's previous construction. The specification describes the limited transmission range of the "relatively low power" transceivers/transmitters as an "advantageous and desirable characteristic" of the claimed control system. '692 patent at 5:54-58. Indeed, the specification and claims highlight that the transceivers/transmitters must be in close proximity to communicate. *See* '692 patent at 8:46-48 (describing RF transmission to a "nearby" transceiver); *id.* at 8:61-62 (same); 9:9-11 (same); 18:55-61 (claim 1) (claiming a

[22] Schlage/Trane argues at length that "low power" and "relatively low power" cannot mean the same thing and are indefinite. The Court addresses Schlage/Trane's arguments in the context of Schlage/Trane's Motion for Summary Judgment for Indefiniteness discussed in a contemporaneous Order.

plurality of relatively low-power transceivers configured to receive and transmit information from at least "one nearby wireless transmitter."). Further, the disclosed embodiments describe systems that require transceivers within close proximity. *See e.g.,*'692 patent at 9:58–10-4; *id.* at 12:24-40; *id.* at 13:1-30.

Coulomb goes one-step further and argues that "low power" should be limited to the output maximum of an exemplary RF transceiver identified in the '492 patent. COULOMB RESPONSE at 24 (citing '492 patent at 3:21-59); *see also* '492 patent at 3:42-45 (noting that the "TR1000, manufactured by RF Monolithics, Inc." can be used to implement the invention). The output maximum is not, however, listed in the patents-in-suit nor is it referenced by the specification in any way. Coulomb argues that a person having ordinary skill in the art would research the output maximum of the TR1000 and attribute that maximum output to the maximum output of a "low power" device. Thus, because the maximum output of the TR1000 transceiver is 1.5mWatts, Coulomb argues the Court should construe "low power" as "transmission power of about 1.5 milliwatts." Coulomb does not, however, argue that the Court's previous construction is incorrect.

SIPCO presents unrebutted expert testimony that a person having ordinary skill in the art would understand "low power" and "relatively low power" as not conveying a specific transmission range. *See* KNIGHT DECL. at ¶¶ 9 (noting that one of ordinary skill in the art would understand "low power" to mean "power sufficient for localized transmissions . . ."). Lastly, there is no intrinsic support for limiting the transmission range to that of one particular embodiment disclosed in the '692 patent. Further, while the limited range of the claimed "relatively low-power" transceivers is not described with mathematical precision, the term, read in context of the intrinsic record, is as precise as the subject matter permits. *See e.g. BJ Services,*

Co. v. Halliburton Energy Services, Inc., 338 F.3d 1368, 1373 (Fed. Cir. 2003); *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576 (Fed. Cir. 1986). Accordingly, the Court construes "low power" as "power having limited transmission range."

II. Means-Plus-Function Limitations

Before reaching the merits of the parties' arguments, the Court must first address the behavior of Schlage/Trane. The Court has a longstanding practice of addressing any indefiniteness issues as part of a separately filed motion for summary judgment to be heard concurrently with claim construction arguments at the claim construction hearing. *See, e.g.*, (Doc. No. 103) (Docket Control Order). If a party wishes to urge that a term is indefinite, it generally must do so in the form of a motion for summary judgment. Further, the Court has a standing Order requiring that leave of Court must be obtained before any motion for summary judgment may be filed. The purpose of the letter briefing procedure is to "sharpen the Court's focus on the dispositive or most important issues" and avoid needless expenditure of the Court's limited resources. See ORDER OF FEBRUARY 13, 2012 (Doc. No. 191) at 2-3.

Schlage/Trane sought leave to a "file a summary judgment motion that many of the claim terms asserted by SIPCO are invalid" because "[i]n most every instance, the corresponding patent specification fails to clearly link structure to the claimed function." (Doc. No. 171-1) ("Schlage/Trane Letter Brief") at 1-3. Rather than identify the terms it believes to be indefinite, Schlage/Trane simply sought blanket permission to file a motion for summary judgment that "many of the claim terms asserted by SIPCO are invalid." *Id.* The Court was left to guess which means-plus-function terms Schlage/Trane believed were indefinite. As such, the Schlage/Trane Letter Brief was devoid of any analysis from which the Court could determine whether its claims were "even arguably meritorious." *See id.* at 2. As a result, the Court declined to grant a blanket

request to file a motion for summary judgment that several unidentified terms are valid. *See id.* at 2-3. [23]

In an apparent attempt to thwart the Court's February 12, 2012 Order and the clear purpose of the Letter Brief procedure, Schlage/Trane's Responsive Claim Construction Brief argues that several of the means-plus-function terms below are indefinite. Further, in arguing that the term "means for receiving each of the original data messages . . ." is indefinite, Schlage/Trane erroneously contends that its Letter Brief "identified this 'means for' claim as being indefinite, for failing to link any structure to the claimed function." SCHLAGE/TRANE RESPONSE at 18. However, as noted above, Schlage/Trane's Letter Brief did not, in fact, identify that term as indefinite. [24] Worse still, Schlage/Trane provides no meaningful argument explaining why it believes the structure and link identified by its co-defendants or SIPCO is inadequate.[25] *Id.* at 18-19; *see also* MARKMAN TRANSCRIPT at 119:18-21 ("Let's see, 19 ["means for receiving the original data message transmitted by the at least one of the plurality of wireless transceivers"], I believe they've just repeated their position from a prior [sic] without any additional citation. That is, 19 and 20 where they say, see repeating means."); *see also id.* at 117:15-118:12 (arguing generally that the means-plus-function terms are indefinite). SIPCO has already been forced to waste its resources responding to conclusory arguments that were made in

[23] Schlage/Trane did identify "means for data transfer" as an exemplary term. Because Schlage/Trane applied the law to this particular term and asserted construction, i.e., made an argument, the Court granted Schlage/Trane permission to brief that one term.

[24] Indeed, had Schlage/Trane actually identified this "means for" term as being indefinite for failing to link any structure to the claimed function in its Letter Brief, the Court likely would have granted Schlage/Trane permission to file a motion for summary judgment arguing the same.

[25] A typical Schlage/Trane argument reads as follows: "SIPCO point to column 10, lines 54-64 of the '511 patent as support its construction. [SIPCO BRIEF] at 25. Yet, neither there, or anywhere else in the '511 patent, is there any link between structure cited by SIPCO, and the claimed function. In order to satisfy 35 U.S.C. § 112(2), a means-plus-function claim element must expressly link structure to the claimed function. Here, there is no correspondence, or linkage of the structure proposed by SIPCO to the claimed function." SCHLAGE/TRANE RESPONSE at 18-19. The Court notes that this type of conclusory argument would barely raise to the level of "arguably meritorious." Thus,

contravention of this Court's Orders. The Court will not do the same. Accordingly, Schlage/Trane's briefing and statements made at the claim construction hearing regarding the alleged indefiniteness of the means-plus-function terms are hereby **STRICKEN.**

The Court now turns to the merits of the parties arguments. As noted above, a claim limitation expressed in "means-plus-function" language is governed by 35 U.S.C. § 112 ¶ 6. *Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997). This statute was intended to permit use of means expressions without recitation of all the possible means that might be used in a claimed apparatus. *O.I. Corp. v. Tekmar Co.*, 115 F.3d 1576, 1583 (Fed. Cir. 1997). "If there is no structure in the specification corresponding to the means plus function limitation in the claims, the claim will be found invalid as indefinite." *Biomedino, LLC v. Waters Techs. Corp.*, 490 F.3d 946, 950 (Fed. Cir. 2007). "This duty to link or associate structure to function is the *quid pro quo* for the convenience of employing § 112, ¶ 6." *Default Proof Credit Card Sys., Inc. v. Home Depot U.S.A., Inc.*, 412 F.3d 1291, 1298 (Fed. Cir. 2005).

If a patent claim contains a means-plus-function limitation, the patent specification must actually disclose structure capable of performing the specified function. *See id.* at 1300-02 (finding that numerous structures proposed by Plaintiff as corresponding structures either did not perform the recited function or were not disclosed in the specification); *see also Biomedino, LLC*, 490 F.3d at 950 (finding a means-plus-function term indefinite where the alleged corresponding structure was a box labeled "control" and the specification explained that the control function may be accomplished "by known differential pressure, valving and control equipment"). "The inquiry is whether one of skill in the art would understand the specification itself to disclose structure, not simply whether that person would be capable of implementing a

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even if Schlage/Trane's arguments were proper, they would not persuade the Court to find the particular terms indefinite.

structure." *Id.* at 953. Structure that merely enables other structure to perform the recited function is not corresponding structure. *Asyst Techs., Inc. v. Empak, Inc.*, 268 F.3d 1364, 1371 (Fed. Cir. 2001) ("An electrical outlet enables a toaster to work, but the outlet is not for that reason considered a part of the toaster."). Furthermore, structure disclosed in the specification must be "clearly linked" to the function recited in the claim. *Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc.*, 248 F.3d 1303, 1313 (Fed. Cir. 2001); *Med. Instrumentation and Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1218-19 (Fed. Cir. 2003).

With respect to computer-implemented inventions, the Federal Circuit generally requires "that the structure disclosed in the specification be more than simply a general purpose computer or microprocessor." *Aristrocrat Techs. Australia Pty Ltd. v. Int'l Gaming Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008). In order to prevent purely functional claiming, the patentee must disclose a step-by-step procedure for implementing the recited function as an algorithm, in prose, or in flow-chart form. *See Ergo Licensing, LLC v. CareFusion 303, Inc.*, 673 F.3d 1361, 1365 (Fed. Cir. 2012) (citing *Typhoon Touch Tech., Inc. v. Dell, Inc.*, 659 F.3d 1376, 1385 (Fed. Cir. 2011)). With that understanding, the Court now turns to the disputed means-plus-function terms.

a. "means for receiving each of the original data messages and the repeated date messages"[26]

SIPCO	Coulomb	SmartLabs
Function: receiving each of the original data messages and the repeated data messages. Structure: a site controller 150 including an antenna 400, an RF transceiver 402, a central processing unit 404, and power supply 410, and equivalents thereof.	Coulomb agrees with SIPCO's identified function and identified structure to the extent the corresponding structure does not make reference to "equivalents thereof"	SmartLabs will stipulate to SIPCO's identified function and corresponding structure

[26] *See* '511 patent at claim 8.

The parties agree that the "means for receiving . . ." term is a means-plus-function element governed by 35 U.S.C. § 112 ¶ 6 and the recited function is "receiving each of the original data messages and the repeated data messages." The specification explains that a "site controller" may be configured to "receive the original data messages and the repeated data messages." '511 patent at 2:66-3:2 (The site controller in communication with at least one of the plurality of wireless transceivers may be configured to: receive the original data messages and the repeated data messages . . . ."); *see also Biomedino, LLC*, 490 F.3d at 950 ("While the specification must contained structure linked to the claims means, this is not a high bar"). Moreover, the specification describes in detail the structure of a site controller. *See* '511 patent at Fig. 4 & 3:51-52 (describing a block diagram of a site controller); *id.* at 10:54-64 (describing the components of the site controller).

Accordingly, the Court construes "means for receiving each of the original data messages and the repeated data messages" as a means-plus-function limitation governed by § 112 ¶ 6 having the function of "receiving each of the original data messages and the repeated data messages," and the corresponding structure of "a site controller 150 including an antenna 400, an RF transceiver 402, a central processing unit 404, and power supply 410 and equivalents thereof."[27]

[27] Coulomb argues that inclusion of the term "equivalents" is improper because "the issue of equivalence is reserved for determining whether or not an accused device infringes a MPF claim, and is a question of fact which is not appropriate for claim construction analysis." COULOMB RESPONSE at 25 (citing *Odetics, Inc. v. Storage Tech. Corp.*, 185 F.3d 1259, 1268-69 (Fed. Cir. 1999). Contrary to Coulomb's suggestion, the Court is not deciding what the equivalents of the particular means-plus-function elements are. As such, *Odetics* is inapposite. Further, Coulomb does not disagree that a means-plus-function element is ordinarily entitled to its equivalents under 35 U.S.C. § 112 and that the jury will receive instructions regarding equivalents under § 112 ¶ 6. MARKMAN TRANSCRIPT at 122:3-14. Coulomb's argues that including such language in the construction of means-plus-function elements "may lead [the jury] to misunderstand what the importance of 112, paragraph 6 equivalents are." *Id.* The Court disagrees and finds that the jury would benefit from including "equivalents thereof" in the Court's constructions of the means-plus-function elements.

b. "means for identifying, for each received message, the remote device associated with the corresponding data signal"[28]

SIPCO	Coulomb	SmartLabs
Function: identifying, for each received message, the remote device associated with the corresponding sensor data signal. Structure: a site controller 150, including a central processing unit 404, a power supply 410, a memory 406 with look-up table or tables 414 and/or memory sectors for identifying a remote transceiver 416 and/or memory 406 configured with program code configured to identify a remote transceiver, and equivalents thereof.	Coulomb agrees with SIPCO's identified function and identified structure to the extent the corresponding structure does not make reference to "equivalents thereof"	Function: identifying, for each received message, the remote device associated with the corresponding sensor data signal. Structure: a site controller 150 including memory 406 and a central processing unit (CPU) 404, the memory 406 including a look-up table 414 that stores identifiers identifying the plurality of remote devices, and the memory storing program code that, when executed by the CPU 404, accesses the look-up table 414 to determine the identity of the remote device associated with the corresponding sensor data signal

The parties agree on the recited function of "identifying, for each received message, the remote device associated with the corresponding sensor data signal." However, SmartLabs disputes SIPCO's proposed structure. For the reasons set forth below, the Court finds that a person having ordinary skill in the art would understand the structure for the recited function to be "a site controller 150, including a central processing unit 404, a power supply 410, a memory 406 with look up table or tables 414 for identifying a remote transceiver and/or memory sectors 416 for identifying a remote transceiver and equivalents thereof."

[28] The term "means for identifying, for each received message, the remote device associated with the corresponding data signal " is found in the '511 patent at claim 8.

SmartLabs contends that the corresponding structure is a site controller including a CPU and memory with a look-up table that stores identifiers identifying remote devices. SMARTLABS RESPONSE at 14. SmartLabs also includes a more detailed description of what SmartLabs contends to be the "specific algorithm disclosed in the specification for performing the recited function, namely, accessing the look-up table to determine the identity of the remote device associated with the corresponding data signal." *Id.* (citing '511 patent at 11:8-56). An underlying assumption of SmartLabs' construction is that the physical structure for performing the recited function is a general purpose computer programmed with an algorithm to "transform the memory and CPU into special-purpose components designed to implement the claimed function." SMARTLABS RESPONSE at 14.

Thus, the crux of the dispute between SIPCO and SmartLabs is whether the proposed structure for the '511 patent's "means for…" claims, various iterations of the "site controller," are "general purpose computers" invoking the algorithm requirement of *WMS Gaming*, or whether sufficient physical structure is disclosed. *See, e.g.,* SIPCO'S REPLY TO SMARTLABS at 6-8; SMARTLABS RESPONSE at 13-15; *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999) ("In a means-plus-function claim in which the disclosed structure is a computer, or microprocessor, programmed to carry out an algorithm, the disclosed structure is not the general purpose computer, but rather the special purpose computer programmed to perform the disclosed algorithm."). Specifically, SmartLabs argues that "SIPCO's corresponding structure is missing the critical algorithm that actually allows the CPU and memory to identify the remote device associated with the corresponding data." SMARTLABS RESPONSE at 15. Unlike *WMS Gaming* and its progeny where the corresponding structure of the means-plus-function elements were algorithms executed on general purpose processors such as

"computers" or "microprocessors," the patentee here disclosed a unique physical structure, a "site controller," equipped with particular structural components. *See Stanacard, LLC v. Rebtel Networks, AB,* 680 F. Supp. 2d 483, 500-501 (S.D.N.Y. 2010) (noting that *WMS Gaming* and its progeny "establish that disclosing a computer or a computer with 'appropriate programming' as the structure designated to perform a function does not satisfy the requirements of § 112 ¶ 6").

While Federal Circuit precedent makes clear that a computer implemented means-plus-function element must recite more than a general purpose computer, the Federal Circuit has provided little guidance for determining when a recited structure is merely a "general purpose computer" in need of an algorithm. The ultimate inquiry, however, is whether a person having ordinary skill in the art would be able to identify sufficient structure to define the metes and bounds of the claim term. *See Stanacard*, 680 F. Supp. 2d at 501 ("Because general purpose computers and microprocessors can be programmed to perform any number of functions, a person skilled in the art reading the claims in view of the specification would not understand the metes and bounds of the claims"); *Biomedino, LLC,* 490 F.3d at 950 ("While the specification must contain structure linked to the claims means, this is not a high bar"). Further, a review of the relevant case law shows that the disclosure in the patents-in-suit of a "site controller 150" and its subcomponents connotes adequate physical structure to avoid triggering the algorithm requirement of *WMS Gaming* and its progeny.

In *Aristocrat*, the Federal Circuit found that the specification's language indicating "that it was within the capability of a worker in the art 'to introduce the methodology on any standard processor base [sic] gaming machine by means of appropriate programming'" amounted to nothing more than "saying that the claimed functions are performed by a general purpose computer." *Aristocrat*, 521 F.3d at 1334 (quoting the specification); *see also WMS Gaming,* 184

F.3d 1348-49 (rejecting the district court's construction, "an algorithm executed by a computer" because it failed to limit the structure to the disclosed algorithm). Similarly, *in HTC Corp.*, the court found that a "processor connected to a transceiver" was a "general purpose computer." *HTC Corp.*, 667 F.3d at 1279-80; *see also Network-1 Sec. Solutions, Inc. v. Cisco Sys., Inc.*, 692 F. Supp. 2d 632, 645-46 (E.D. Tex. 2010) (finding the structure "A/D converter and microprocessor 24 and switch 28" recited a general purpose computer triggering *WMS Gaming*); *see also Minerva Indus., Inc. v. Motorola, Inc.*, 2:07-cv-229-CE, 2010 WL 446502 (E.D. Tex. Feb. 3, 2010) (finding that the recited structure "a button and microphone coupled to a microprocessor programmed to control recording sounds from the microphone or a remote telephone" triggered *WMS Gaming*).

SmartLabs argues that SIPCO's proposed construction "recites only general purpose computer components" that cannot perform the recited function absent an algorithm. SMARTLABS at 14-15. For SmartLabs, a construction that includes "general purpose computer components" such as "memory" and a "CPU" must be a general purpose computer and therefore must have a corresponding algorithm to perform the function. However, it cannot be the case that all structures that include general purpose computer **components** are, in fact, general purpose computers as contemplated by *Aristocrat* and *WMS Gaming*. While it is true that the "site controller" is made of general purpose computer components, in the aggregate, these components do not amount to a "general purpose computer." As an initial matter, the Court construed the term "site controller" as "a device that manages and relays data between the wireless transceivers and the wide area network." *See supra.* Thus, on its face, a "site controller" is not a general purpose computer. Moreover, the specification describes the physical structure of a site controller with some degree of specificity. For example, rather than

simply recite a "computer" or a "processor connected to a transceiver," the specification discloses various iterations of a "site controller" that include specific identified components such as "a processing unit 404" and "a power supply 410" in addition to a "memory 406" configured with one of two particular structures: (1) "with look up table or tables 414 for identifying a remote transceiver;" and/or (2) "memory sectors 416 for identifying a remote transceiver."

In contrast to *HTC Corp.*, where the district court inferred a generic processor and transceiver to perform the recited function, the specification here explicitly identifies components that form the physical structure of a unique "site controller." *See* '511 patent at Fig. 4; '511 patent at 10:50 -12:7; *see also Levine v. Samsung Telecommunications Am., LLC*, 2:09-CV-372, 2012 WL 383647, at * 19 (E.D. Tex. Feb. 3, 2012) (finding no algorithm necessary where the patentee disclosed "special-purpose hardware" such as "video image signal transmitter"). Moreover, "memory 406 with look up table or tables 414" and "memory sectors 416" connote specific structures of memory. *See* '511 patent at 10:8-56 (describing the look-up table 414); *id.* at Fig. 4.

Furthermore, SmartLabs' attempt to identify a specific algorithm for transforming the "general purpose computer" components of the site controller excludes an embodiment of the "site controller" necessary for performing the recited function. Specifically, SmartLabs excludes a structural alternative where the site controller includes "memory sectors 416 for identifying a remote transceiver." SmartLabs argues that the language "for identifying a remote transceiver" "impermissibly parrots the claimed function." SMARTLABS RESPONSE at 15. However, the plain language of the specification describes the structure of the memory sectors 416 as different than the claimed function of "identifying, for each received message, the remote device associated with the corresponding sensor data signal." *Compare* '511 patent at 11:16-18 ("site controller

150 may include an 'Identify Remote Transceiver' memory sector 416") *with id.* at 24:43-45 (claim 8) ("a means for identifying, for each received message, the remote device associated with the corresponding sensor data signal"). Moreover, memory sectors 416 are particular structures within the overall structure of the site controller. Although this does not provide a detailed step-by-step algorithm detailing how to the site controller performs the recited function, the patentee need not do this because the site controller is not a general purpose computer.[29] *See Biomedino, LLC*, 490 F.3d at 950 ("While the specification must contain structure linked to the claims means, this is not a high bar").

SIPCO's proposed structure also includes a third memory configuration where the memory 406 is "configured with program code configured to identify a remote transceiver." The Court finds that this catchall clause fails to provide any meaningful limits to the structure of the site controller because it does not connote physical structure, it does not provide an "algorithm" sufficient to program the site controller to perform the recited function, nor is it broadly supported by the specification. *See Encyclopaedia Britannica, Inc. v. Alpine Electronics, Inc.*, 355 Fed. Appx. 389, 394-95 (Fed. Cir. 2009) (unpublished) (finding that a one-step algorithm recited in the specification was merely a "recitation of the claimed function"); *see also Minerva Indus., Inc. v. Motorola, Inc.*, 2:07-cv-229-CE, 2010 WL 446502 (E.D. Tex. Feb. 3, 2010) (finding that the recited structure "a button and microphone coupled to a microprocessor programmed to control recording sounds from the microphone or a remote telephone" merely recited a general purpose computer programed to perform a function and therefore required an

[29] Neither the Court's nor SIPCO's construction include a "transceiver" as suggested by SmartLabs. *See* SMARTLABS RESPONSE at 15. Rather, the structure identifies a particular memory sector, 416, marked as "identify remote transceiver." *See* '511 patent at 11:16-18; *id.* at Fig. 4.

algorithm). Accordingly, the Court declines to include "configured with program code configured to identify a remote transceiver" in its construction of this term.

Lastly, the specification clearly links the function of "identifying, for each received message, the remote device associated with the corresponding sensor data signal" to the "site controller." *See* '511 patent at 11:11-33 ("The site controller 150 may be configured such that the memory 406 includes a look up table 414 configured for identifying the various remote and intermediate communication devices . . .").

Thus, subject to the clarifications above, the Court finds that "site controller" connotes adequate physical structure such that a person having ordinary skill in the art could determine the metes and bounds of the claim term. Accordingly, the Court construes "means for identifying, for each received message, the remote device associated with the corresponding data signal" as a means-plus-function limitation governed by §112 ¶ 6 having the function of "identifying for each received message, the remote device associated with the corresponding sensor data signal" and the corresponding structure of "a site controller 150, including a central processing unit 404, a power supply 410, a memory 406 with look up table or tables 414 for identifying a remote transceiver and/or memory sectors 416 for identifying a remote transceiver and equivalents thereof."[30]

c. "means for providing a command message"[31]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
Function: providing a command message. Structure: the site	Coulomb agrees with SIPCO's identified function and identified structure to	Function: providing a command message to one of the plurality of wireless	Schlage/Trane is willing to stipulate to SIPCO's proposed function and structure.

[30] That a structure is recited in the alternative does not render a means-plus-function term indefinite. *See Dealertrack, Inc. v. Huber*, 647 F.3d 1315, 1329 (Fed. Cir. 2012) ("[T]he written description may disclose distinct and alternative structures for performing the claimed function.") (quoting *Creo Prods., Inc. v. Presstek, Inc.*, 305 F.3d 1337, 1345 (Fed. Cir. 2002)).

[31] The term "means for providing a command message" is found in the '511 patent at claim 10.

controller 150, including a central processing unit 404, an RF transceiver 402, and a power supply 410, for transmitting a command message initiated by the site controller 150, applications server 110, laptop 155, workstation 160, or any other device connected to the WAN 120, and equivalents thereof.	the extent the corresponding structure does not make reference to "equivalents thereof	communication means Corresponding Structure: Unable to construe due to lack of corresponding structure	

Although not moving for summary judgment of invalidity for indefiniteness, SmartLabs argues that the "means for providing" term is "not amendable to construction." SMARTLABS RESPONSE at 18-19. SIPCO identifies the function as a truncated version of the claims language but provides no reason for straying from the claim language. Thus, the Court finds that the function of "means for providing a command message" is "providing a command message to one of the plurality of wireless communication means." *See* '511 patent at claim 11.

SIPCO argues that the corresponding structure is "the site controller 150, including a central processing unit 404, an RF transceiver 402, and a power supply 410, for transmitting a command message initiated by the site controller 150, applications server 110, laptop 155, workstation 160, or any other device connected to the WAN 120, and equivalents thereof." SmartLabs counters that this structure amounts to nothing more than a "CPU, a transceiver, and a power supply" and therefore is merely a general purpose computer. SMARTLABS RESPONSE at 18-19 (citing *HTC Corp.*, 667 F.3d at 1280). In contrast, SmartLabs argues there is no corresponding structure. Specifically, SmartLabs argues that SIPCO's proposed construction amounts to a general purpose computer "for transmitting a command message" but fails to

identify the particular algorithm for transmitting the command message. *Id.* at 18. However, for the same reasons discussed above in the context of "means for identifying," the Court finds that the "site controller" is not a general purpose computer. As a result, the specification need not disclose an explicit step-by-step algorithm for programming a general purpose computer.

Accordingly, the Court construes "means for providing a command message" as a means-plus-function limitation governed by §112 ¶ 6 having the function of "providing a command message" and the corresponding structure of "the site controller 150, including a central processing unit 404, an RF transceiver 402, and a power supply 410, for transmitting a command message initiated by the site controller 150, applications server 110, laptop 155, workstation 160, or any other device connected to the WAN 120, and equivalents thereof." *See* '511 patent at 9:5-8 ("The command message may be initiated from site controller 150, applications sever 110, laptop 155, workstation 160, or any other device connected to the WAN 120"); *id.* at 5:17-23 ("As illustrated in FIG. 1, one or more sensors 140 may communicate with at least one site controller 150 via a wireless transmitter 145, a wireless transceiver 135, or a wireless transceiver/repeater 125. Furthermore, one or more sensors/actuators 130 may communicate with at least one site controller 150 via a wireless transceiver 135 or a wireless transceiver/repeater 125").

d. "wireless communications means"[32]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
Function: to receive a sensor data signal from one of the plurality of remote devices and transmit an original data message using a	Function: to receive a sensor data signal from one of the plurality of remote devices and transmit an original data message using a	SmartLabs will stipulate to SIPCO's identified function and corresponding structure	"a transceiver having a code that identifies a specific transceiver from all other transceivers and communicates without any wires"

[32] The term "wireless communication means" is used in the '511 patent at claims 8, 9, & 11.

predefined wireless communication protocol, the original data message comprising the corresponding unique identifier and sensor data signal, and further configured to receive the original data message transmitted by one of the other wireless transceivers and transmit a repeated data message using the predefined communication protocol, the repeated data message including the sensor data signal and the corresponding unique identifier. Structure: a wireless RF transceiver 135 that includes an RF transceiver controller 210, a data interface 205, a microcontroller 215, a memory 220, and an antenna 225 and equivalents of these structures.	predefined wireless communication protocol Corresponding Structure: Coulomb agrees with SIPCO's identification of the corresponding structure to the extent it does not make reference to "equivalents thereof"		

All parties save Schlage/Trane agree that "wireless communication means" is a means-plus function term. SmartLabs agrees with SIPCO while Coulomb agrees with SIPCO's identified structure but takes issue with SIPCO's proposed function. COULOUMB'S RESPONSE at 26.

First, the Court finds that "wireless communication means" is in means-plus-function format. The Federal Circuit has consistently held that "a patentee's use of the word 'means' in a claim limitation creates a presumption that 35 U.S.C. § 112 paragraph 6 applies." *Welker Bearing Co. v. PHD, Inc.*, 550 F.3d 1090, 1096 (Fed. Cir. 2008) (citing *TriMed, Inc. v. Stryker Corp.*, 514 F.3d 256, 1259 (Fed. Cir. 2008)). To rebut that presumption, one must show that the claim itself recites sufficient structure for performing the described functions in their entirety. *See TriMed,* 514 F.3d at 1259. In this case, Schlage/Trane inexplicably argues that the "wireless communication means" term is not a means plus function term because the claim is not "written 'as a means or step for performing a specified function.'" SIPCO RESPONSE at 21 (quoting 35 U.S.C. § 112 ¶ 6). Instead, Schlage/Trane argues that "SIPCO seems to ignore this requirement, and recites a lengthy 'function' which has no basis whatsoever in the claim language." *Id.*

Contrary to Schlage/Trane's assertions, SIPCO's proposed function exactly traces the language of the claims. Specifically, claim 8 of the '511 patent recites:

> a plurality of wireless communication means having unique identifiers, each of the plurality of wireless communications means configured to receive a sensor data signal from one of the plurality of remote devices and transmit an original data message using a predefined wireless communication protocol, the original data message comprising the corresponding unique identifier and sensor data signal, and further configured to receive the original data message transmitted by one of the other wireless transceivers and transmit a repeated data message using the predefined communication protocol, the repeated data message including the sensor data signal and the corresponding unique identifier.

'511 patent at claim 8 (emphasis added). Because there is a presumption that claim terms with "means" are in means-plus-function format, the claims clearly recite a function, and Schlage/Trane provides no argument showing otherwise, the Court finds that "wireless communication means" is governed by §112 ¶ 6.

Coulomb does not dispute the identified structure but argues that SIPCO's proposed function impermissibly includes structural elements from the claim. COULOMB'S RESPONSE at 26. Unfortunately, Coulomb's argument stops there and leaves the Court to guess what it believes to be the additional "structural elements." Notably, SIPCO's proposed function includes two essential elements: (1) "configured to receive a sensor data signal from one of the plurality of remote devices and transmit an original data message using a predefined wireless communication protocol" and (2) "configured to receive the original data message transmitted by one of the other wireless transceivers and transmit a repeated data message using the predefined communication protocol." However, Coulomb's proposal would eliminate the second function of the wireless communication means. The remainder of the disclosed function merely further describes the "original data message" and the "repeated data message" but fails to identify any further physical structure. Given that the plain language indicates that the "wireless communications means" is also "configured to receive the original data message" and Coulomb provides no argument as to why this function should be excluded, the Court declines to adopt Coulomb's proposal.

Accordingly, the Court construes "wireless communication means" as a means-plus-function limitation governed by §112 ¶ 6 having the function "to receive a sensor data signal from one of the plurality of remote devices and transmit an original data message using a predefined wireless communication protocol, the original data message comprising the corresponding unique identifier and sensor data signal, and further configured to receive the original data message transmitted by one of the other wireless transceivers and transmit a repeated data message using the predefined communication protocol, the repeated data message including the sensor data signal and the corresponding unique identifier" and the corresponding

structure of "a wireless RF transceiver 135 that includes an RF transceiver controller 210, a data interface 205, a microcontroller 215, a memory 220, and an antenna 225 and equivalents thereof."

e. "means for providing information related to the sensor data signal to the wide area network for delivery to the host computer"[33]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
Function: providing information related to the sensor data signal to the wide area network for delivery to the host computer. Structure: "a site controller 150 including a central processing unit 404, a power supply 410, and network interface device(s) 408 for connecting between the site controller 150 and the wide area network 120, such as a network card, a digital subscriber line modem, an integrated services digital network (ISDN) interface card, configurable to enable a TCP/IP connection, and equivalents thereof."	Function: providing information related to the sensor data signal to the wide area network for delivery to the host computer Structure: a site controller 150 including a central processing unit 404, a power supply 410, an antenna 400, an RF transceiver 402, memory 406, and network interface device(s) 408 for connecting between the site controller 150 and the wide area network 120, such as a network card, a digital subscriber line modem, an integrated services digital network (ISDN) interface card, configurable to enable a TCP/IP connection	SmartLabs will stipulate to SIPCO's identified function and corresponding structure	Function: providing information related to the sensor data signal to the wide area network for delivery to the host computer. Structure: a site controller 150, which may also include a network interface device to facilitate the communication with the Wide Area Network.

[33] The term "means for providing information related to the sensor data signal to the wide area network for delivery to the host computer" is found in the '511 patent at claim 8

The parties agree that "means for providing information. . . " is governed by §112 ¶ 6 and that the claim recites the function as "providing information related to the sensor data signal to the wide area network for delivery to the host computer." Further, the parties agree that the corresponding structure is at least a "site controller 150" that may include a "network interface device." SIPCO and Coulomb argue that the site controller **must** include a network interface device in addition to a central processing unit 404 and a power supply unit 410. Coulomb further argues that the site controller must include an antenna 400, an RF transceiver 402, and a memory 406. For the reasons set forth below, the Court adopts SIPCO's proposal.

Schlage/Trane states without argument or explanation that SIPCO and Coulomb's proposed structure includes "additional structure" that is "superfluous." SHLAGE/TRANE RESPONSE at 21-22. Instead, Schlage/Trane argues that the corresponding structure is merely a "site controller 150, which may also include a network interface device to facilitate the communication with the Wide Area Network." *Id.* While Schlage/Trane is correct that means-plus-function elements are to be construed to encompass only the structure necessary to perform the recited function, Schlage/Trane fails to offer any argument or explanation why SIPCO's construction includes "superfluous" elements. Indeed, SIPCO's proposal includes no more components than Schlage/Trane's structure: a site controller and a network interface device. SIPCO's proposal, however, identifies the structure with a greater degree of particularity by identifying the numbered components in the specification and by further identifying particular subcomponents of the site controller (central processing unit 404 and a power supply 410). *See* '511 patent at 10:54-62 ("A site controller 150 may comprise an antenna 400, an RF transceiver 402, a central processing unit (CPU) 404, memory 406, a network interface device, such as a

network card 425, a digital subscriber line (DSL) modem, an integrated services digital network card (ISDN) interface card . . . configured to enable a TCP/IP connection to the WAN 120").

Coulomb's proposal, however, ***does*** include superfluous elements. *See Micro Chem., Inc. v. Great Plains Chem. Co., Inc.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999) (a corresponding structure is only that which is necessary to perform the claimed function). Coulomb's proposal includes an "an antenna 400, an RF transceiver 402, [and a] memory 406." As an initial matter, Coulomb fails to provide any argument for the proposition that these additional components are necessary to perform the recited function. Furthermore, the specification contemplates a site controller that may communicate with the WAN over a ***wired*** connection and therefore need not necessarily require a transceiver or antenna to do so – it merely requires a network interface. *See* '511 patent at 5:30-35 (noting site controllers may communicate via wired communication media).

Accordingly, the court construes "means for providing information related to the sensor data signal to the wide area network for delivery to the host computer" as a means-plus-function element governed by §112 ¶ 6 having the function of "providing information related to the sensor data signal to the wide area network for delivery to the host computer" and the corresponding structure of "a site controller 150 including a central processing unit 404, a power supply 410, and network interface device(s) 408 for connecting between the site controller 150 and the wide area network 120, such as a network card, a digital subscriber line modem, an integrated services digital network (ISDN) interface card, configurable to enable a TCP/IP connection, and equivalents thereof."

f. "repeating means having unique identifiers, each of the plurality of repeater means in communication with at least one of the plurality of wireless communication means"[34]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
Function: receiving the original data message transmitted by the at least one of the plurality of wireless transceivers and...transmitting a repeated data message using the predefined communication protocol, the repeated data message including the sensor data signal from the original data message and the unique identifier corresponding to the repeater Structure: "a wireless transceiver/repeater 125 device, including transceiver 135 comprising an RF transceiver controller 210, a microcontroller 215, a memory 220, and an antenna 225 and equivalents thereof"	Coulomb agrees with SIPCO's identified function and identified structure to the extent the corresponding structure does not make reference to "equivalents thereof	Function: SmartLabs agrees with SIPCO's identified function Corresponding Structure: Unable to construe due to lack of corresponding structure	Function: receiving the original data message transmitted by the at least one of the plurality of wireless transceivers and . . . transmitting a repeated data message using the predefined communication protocol. Structure: a transceiver that communicates a repeated data message without any wires.

Schlage/Trane argues that SIPCO's proposed function improperly adds structural limitations to the identified function. SCHLAGE/TRANE RESPONSE at 22. Specifically, Schlage/Trane argues that SIPCO's description of the contents of the repeated data message, "the repeated data message including the sensor data signal from the original message and the unique

[34] The term "repeating means having unique identifiers, each of the plurality of repeater means in communication with at least one of the plurality of wireless communication means" is found in claim 9 of the '511 patent.

identifier corresponding to the repeater," should not be included because the Court's construction of 'repeated data message' should inform the construction regarding the meaning of this means-plus-function term." *Id.* However, the disputed language exactly traces the language of the claim and effectively informs the jury what "repeated data message" means.[35] Accordingly, the Court sees no need to deviate from the plain language of the claim and adopts SIPCO's proposed function.[36]

SmartLabs argues that the term is indefinite because SIPCO's corresponding structure is merely a general purpose computer and fails to identify an algorithm for performing the reciting function. SMARTLABS RESPONSE at 16-17. The Court, however, finds that "a wireless transceiver/repeater device 125", like "site controller" recited above, is not a general purpose computer. While the device may include "general purpose computer" components such as a "memory," the identified structure includes a specific device, "transceiver/repeater device 125" that comprises specific identified components, i.e. RF transceiver controller 210, microcontroller 215, memory 220, and an antenna 225. Specifically, the specification describes an "automated monitoring system 100 may comprise a plurality of stand-alone wireless transceivers/repeaters 125. Each stand-alone wireless transceiver/repeater 125, as well as each wireless transceiver 135 may be configured to receive one or more incoming transmissions (transmitted by a remote transmitter 145 or transceiver 135) and to transmit an outgoing signal." '511 patent at 5:36-42. The specification further describes the structure of the transceiver 135: "[t]ransceiver 135 may comprise an RF transceiver controller 210, a data interface 205, a microcontroller 215, a memory 220, and an antenna 225." *Id.* at 6:63-66; *see also id.* at Fig. 2; *Levine,* 2012 WL 383647 at * 19

[35] This is particularly true in light of the Court's conclusion that "repeated data message" need not be construed because its meaning is clear from the plain language of the claims.

[36] The extended function is a result of interpreting the "repeating means…" limitation of claim 9 as encompassing both the "means for receiving transmitting . . ." and "means for transmitting . . ." elements. *See*

(finding no algorithm necessary where the patentee disclosed "special-purpose hardware" such as "video image signal transmitter"); *cf. HTC Corp.* 667 F.3d at 1280 (finding "transceiver" and "processor" insufficient physical structure to perform recited computer implemented functions).

Schlage/Trane proposes a structure that effectively defines the "wireless transceiver/repeater" as a "transceiver that communicates a repeated data message without any wires." SCHLAGE/TRANE RESPONSE at 22-23. Schlage/Trane's structure closely mimics the structure rejected in *HTC Corp.* There, the Federal Circuit found that "a processor connected to a transceiver and programmed to formulate and send messages to reactivate the link, if the handover is unsuccessful," did not provide sufficient structure because it merely disclosed a general purpose computer programmed to perform the recited function. *HTC Corp.* 667 F.3d at 1278-80. Schlage/Trane's proposal only includes the generic "transceiver" that performs the recited function and is inadequate for the reasons SmartLabs suggests. In contrast, SIPCO's proposal includes specific structural components.

Furthermore, Schlage/Trane's inclusion of "without wires" is not necessary because (1) SIPCO includes the actual structure for the "antenna" and (2) the specification contemplates that, in some situations, transceivers may communicate via wired communications. Accordingly, the Court construes "repeating means having unique identifiers, each of the plurality of repeater means in communication with at least one of the plurality of wireless communication means" as a means-plus-function element governed by §112 ¶ 6 having the function of "receiving the original data message transmitted by the at least one of the plurality of wireless transceivers and transmitting a repeated data message using the predefined communication protocol, the repeated data message including the sensor data signal from the original data message and the unique identifier corresponding to the repeater" with the corresponding structure of "a wireless

transceiver/repeater 125 device, including transceiver 135 comprising an RF transceiver controller 210, a microcontroller 215, a memory 220, and an antenna 225 and equivalents thereof."[37]

g. "means for transmitting, in response to the command message, the original data message, wherein the original data message corresponds to the command message"[38]

SIPCO	Coulomb	SmartLabs
Function: transmitting, in responses to the command message, the original data message, wherein the original data message corresponds to the command message. Structure: a transceiver (such as element 135), a microcontroller (such as element 215), and a data controller (such as element 210), and equivalents thereof.	Coulomb agrees with SIPCO's identified function and identified structure to the extent the corresponding structure does not make reference to "equivalents thereof	Function: SmartLabs agrees with SIPCO's identified function Structure: Unable to construe due to lack of corresponding structure

SmartLabs argues that SIPCO's proposed structure of "a transceiver, microcontroller, and data controller simply constitute a general-purpose computer." SMARTLABS RESPONSE at 19 (citing *HTC*, 667 F.3d at 1280). Thus, the proposed structure is inadequate because it fails to recite an algorithm to perform the recited function. *Id.* at 19-20. However, for the same reasons discussed above, the Court finds that the proposed structure provides adequate structure such that it is not a "general purpose computer." Unlike *HTC* where the district court inferred a

[37] The parties agree that "means for receiving the original data message transmitted by the at least one of the plurality of wireless transceivers" and "means for transmitting a repeated data message using the predefined communication protocol" are incorporated into the "repeating means having unique identifiers . . ." element. *See* SIPCO BRIEF at 29 n.11; *See also* JOINT CLAIM CONSTRUCTION CHART (Doc. No. 223) at 11-13. Thus, for the same reasons stated above, the Court finds that "a wireless transceiver/repeater 125 device, including transceiver 135 comprising an RF transceiver controller 210, a microcontroller 215, a memory 220, and an antenna 225 and equivalents thereof" is adequate corresponding structure is clearly linked to the recited function. *See* '511 patent at 5:36-42.

[38] The term "means for transmitting, in response to the command message, the original data message, wherein the original data message corresponds to the command message" is found in the '511 patent at claim 10.

"processor" and a "transceiver" to perform a function and then reiterated the recited function as part of the structure, the specification discloses a specific structure that includes: a transceiver 135, a microcontroller 215, and a data controller 210. S*ee* '511 patent at Fig. 2 (depicting an exemplary transceiver). Thus, this is not a situation where the Court must infer a generic processor and transceiver to perform the recited function, the specification clearly identifies particular structural elements that perform the recited function. Therefore, no algorithm is necessary. *See Levine*, 2012 WL 383647, at * 19 (E.D. Tex. Feb. 3, 2012) (finding no algorithm necessary where the patentee disclosed "special-purpose hardware" such as "video image signal transmitter").

Furthermore, the specification clearly describes a transceiver 135 with reference to Figure 2 that transmits a message in response to a command message:

> Referring again to FIG. 2, during normal operation, transceiver 135 may receive a command message on antenna 225 via a message protocol. The command message may be initiated from site controller 150, applications server 110, laptop 155, workstation 160, or any other device connected to WAN 120. In this manner, the command message may be used to request data related to the electricity consumption of a particular electric meter (i.e., sensor 104, sensor/actuator 135). Microcontroller 215 may evaluate the received message to determine if the "to" address is its own unique address. If it is, then the microcontroller 215 evaluates the command and prepares a response message.
>
> In response to the command message, microcontroller 215 receives the sensor [sic] data related to the sensor 140 and/or sensor/actuator 130. In one embodiment, the sensor data may be retrieved by initiating a request to the sensor 140 and/or sensor/actuator 130. In another embodiment, the data may be stored in memory 220, in which case microcontroller 215 retrieves the data from memory 220. Microcontroller 215 may also retrieve the unique address from memory 220. Then, the microcontroller 215 formats a transmit signal in response to the command message as described above. Microcontroller 215 then communicates the transmit signal to transceiver controller 210, which provides the transmit signal to the wireless communication network. The transmit signal may be delivered to the site controller 150. Depending on where the command message was generated, the transmit signal may be forwarded to applications server 110, laptop 30 155, workstation 160, a computing device operated by a user, or any other device connected to WAN 120.

'511 patent at 9:3-32 (emphasis added); *see also Biomedino LLC*, 490 F.3d at 950 ("While the specification must contain structure linked to claimed means, this is not a high bar").

Accordingly, the Court construes "means for transmitting, in response to the command message, the original data message, wherein the original data message corresponds to the command message" is a means-plus-function element governed by §112 ¶ 6 with the recited function of "transmitting, in response to the command message, the original data message, wherein the original data message corresponds to the command message" and the corresponding structure of "a transceiver (such as element 135) including a microcontroller (such as element 215), an antenna (such as element 225), and a transceiver controller (such as element 210), and equivalents thereof."

h. "means for identifying the receiver [of the data packet][39]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
Not a means-plus-function claim; does not require construction – entitled to plain & ordinary meaning. Alternatively, "a portion of the data packet containing information for identifying the receiver"	Claim is indefinite for failure to provide structure corresponding to the claimed function	Function: identifying the receiver of the data packet SmartLabs will stipulate to SIPCO's alternative construction	This limitation is governed by §112 ¶ 6.[40]

The essential dispute between the parties is twofold: (1) whether claim 11 and claim 12 "means for" terms are means-plus-function elements governed by §112 ¶ 6 and if so, (2) whether the specification discloses an adequate structure to perform the recited functions. As will be

[39] The term "means for identifying the receiver [of the data packet]" is used in claim 11 of the '511 patent.

[40] Shlage/Trane notes only that this term is a means-plus-function term and "[f]or the majority of [the claim 11 and claim 12] terms, Schlage/Trane believes that a data field of Figure 5 provides the relevant structure." SCHLAGE/TRANE RESPONSE at 23-24.

explained in more detail below and in the following sections, the Court finds that the claim 11 and claim 12 means for terms are governed by §112 ¶ 6 and the specification recites adequate structure for all terms.

As noted above in the context of "wireless communication means," claim terms reciting "means for" are presumed to be governed by §112 ¶ 6. *See Welker Bearing Co.*, 550 F.3d at 1096). To rebut that presumption, one must show that the claim itself recites sufficient structure for performing the described functions in their entirety. *See TriMed*, 514 F.3d at 1259. In this case, SIPCO argues that the term "means for identifying the receiver of the data packet" is not governed by § 112 ¶ 6 because the term fails to recite a function. SIPCO BRIEF at 31. In support, SIPCO relies on a statement by the Examiner during Reexamination of the '511 patent in which the Examiner stated the disputed terms of claims 11 and claim 12 "are recited as data fields which are nonfunctional descriptive material. Since they lack function, these means are not being treated under 35 U.S.C. 112, sixth paragraph." *Id.* at 31 (quoting Ex. P. at 7).

Although SIPCO is correct that the Examiner is presumed to act from the viewpoint of a person having ordinary skill in the art, neither the Examiner nor SIPCO provide sufficient analysis to rebut the presumption that claim using "means for" is written in means-plus-function format. Claim 11 recites "a means for identifying the receiver of the data packet" where the function is "identifying the receiver of the data packet." Furthermore, both the Examiner and SIPCO are correct that this term corresponds to a data field in Figure 5. However, the Court finds that the matching data field, in this case, "to Address 500" provides the structure to perform the recited function of identifying the receiver of the data packet. *See* '511 patent at 12:20-32 ("The "to" address 500 indicates the intended recipient of the packet. . . ."); *see also id.* at Fig. 5.

The specification describes a data packet protocol where the message structure comprises various fields:

> Communication between the site controller 150 and the communication devices within coverage area 165 may be implemented using a data packet protocol according to the present invention. FIG. 5 sets forth one embodiment of a message structure for the data packet protocol of the present invention. Messages transmitted within the automated monitoring system 100 may consist of a "to" address 500, a "from" address 510, a packet number 520, a number of packets in a transmission 530, a packet length 540, a message number 550, a command number 560, data 570 (if applicable), and a [sic] check sum error detectors (CKH 580 and CKL 590).

'511 patent at 12:8-19 (emphasis added); *id.* at 13:4 (describing "data field 570"); *id.* at 13:21 (describing "Checksum fields 580 and 590). Moreover, the specification describes the structure of the "to" address 500 in detail:

> The "to" address 500 indicates the intended recipient of the packet . . . by way of example, the "to" address 500 may indicate a general message to all transceivers, to only the repeaters, or to a single integrated transceiver. In a six byte "to" address 500, the first byte indicates the transceiver type – to all transceivers, or some transceivers, or a specific transceiver. The second byte may the identification base, and bytes three through six may be used for the unique transceiver address (either standard alone or integrated). The "to" address may be scalable from one byte to six bytes depending upon the intended recipient(s).

'511 patent at 12:20-32. Thus, the specification discloses more than simply a "black box" or further functional language. *Cf. Blackboard, Inc.*, 574 F.3d at 1383 ("The ACM is essentially a black box that performs a recite function. But how it does so is left undisclosed.").

Accordingly the Court construes "means for identifying the receiver of the data packet" as a means-plus-function element governed by §112 ¶6 with the recited function of "identifying the receiver of the data packet" and the corresponding structure of "a field of the data packet containing the "to" address 500."[41]

[41] Coulomb agrees that the "means for identifier of the data packet" claim is a means-plus-function element but argues that the "to address 500" designation is inadequate structure to perform the function of "identifying the sender of the data packet." COULOMB RESPONSE at 28-29. However, unlike the patent in *Blackboard*, the '511 patent further describes the structure of the "to" address in detail. *See* '511 patent at 12:20-32.

i. "means for identifying the sender"[42]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
Not a means-plus-function claim; does not require construction – entitled to plain & ordinary meaning. Alternatively, "a portion of the data packet containing information for identifying the sender"	Claim is indefinite for failure to provide structure corresponding to the claimed function	Function: identifying the sender of the data packet SmartLabs will stipulate to SIPCO's alternative construction	This limitation is governed by §112 ¶ 6.

The parties largely raise the same arguments discussed above in the context of "means for identifying the receiver." The Court finds that SIPCO has not rebutted the presumption that "means for identifying" is a means-plus-function term governed by §112 ¶ 6. The plain language of the claims recite the function, "identifying the sender of the data packet." Coulomb again argues that the specification fails to disclose an adequate structure corresponding to the function of "identifying the sender of the data packet." COULOMB RESPONSE at 29. However, Figure 5 and the accompanying description in the specification describes the "from" address 510 as performing the recited function. Specifically, the specification states that the "from" address 510 is a field of the "message structure for the data packet protocol" that "identifies the transceiver originating the transmission and may be a six-byte unique address." '511 patent at 12:11-12; *id.* at 12:33-35. Moreover, "[t]he 'from' address 510 may be the address of the controller 150 (FIG 1) when the site controller 150 (FIG. 1) requests data, or this may be the address of the integrated transceiver responding to a request for information from the site controller 150 (Fig. 1)." *Id.* at 35-39. Further, a repeater 125 could also be the device sending

[42] The term "means for identifying the sender" is used in claim 11 of the '511 patent.

the message to the extent that a message originates from a repeater 125. *See* '511 patent at 15:17-24.

Coulomb provides no argument suggesting that a person having ordinary skill in the art would find the above referenced structure inadequate to perform the recited function of "identifying the sender of the data packet." The specification clearly describes an example of the from address 510 as a "six byte unique address." Accordingly, the Court construes "means for identifying the sender of the data packet" as a means-plus-function element governed by §112 ¶ 6 having the recited function of "identifying the sender of the data packet" having the corresponding structure of "a field of the data packet containing the from address 510."

j. "command means for specifying a predefined command code"[43]

SIPCO	Coulomb	SmartLabs
Not a means-plus-function claim; does not require construction – entitled to plain & ordinary meaning. Alternatively, "a portion of the data packet containing information for specifying a predefined command code"	Claim is indefinite for failure to provide structure corresponding to the claimed function	Function: identifying the sender of the data packet SmartLabs will stipulate to SIPCO's alternative construction

The parties largely raise the same arguments discussed above in the context of "means for identifying the receiver." The Court finds that SIPCO has not rebutted the presumption that "command means for specifying a predefined command code" is a means-plus-function term governed by §112 ¶ 6. Coulomb argues that "[a]lthough the specification discloses examples of the types of commands that may designate a specific data request, there is no adequate structure corresponding to the function of 'specifying a predetermined command code.'" COULOMB RESPONSE at 29. Nevertheless, the Court finds that a person having ordinary skill in the art

[43] The term "command means for specifying a predefined command code" is used in claim 11 of the '511 patent.

would find the corresponding structure to the function of "specifying a predefined command code" to be "a field of the data packet containing command number 560."

As explained above, Fig. 5 depicts various fields of the data packet protocol used to communicate within the automated monitoring system described in the specification. Specifically, Fig. 5 depicts a data field "command number 560." *See* '511 patent at Fig. 5; *see also id.* at 12:8-19 (indicating that messages transmitted within the automated monitoring system include "a command number 560"). Moreover, "[t]he command number 560 may designate a specific data request from the receiving device." *Id.* at 12:56-57. The specification also includes several examples of command numbers that correspond to predefined command codes. For example, command number "08" corresponds to "Respond to PING." '511 patent at Fig. 7; *id.* at 14:32- 48 (describing the execution of the "ping" command). While the specification explains that the types of commands may differ from device to device, the specification does not suggest that the structure for the "specifying a predefined command code" is anything but the data field labeled "command number 560." Thus, the Court finds that "command means for specifying a predefined command code" is a means-plus-function element governed by §112 ¶ 6 having the recited function of "specifying a predefined code" and the corresponding structure of "a field of the data packet containing the command number 560."

k. "means for indicating a total number of bytes"[44]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
Not a means-plus-function claim; does not require construction – entitled to plain & ordinary meaning. Alternatively, "a	Claim is indefinite for failure to provide structure corresponding to the claimed function	Function: identifying the sender of the data packet SmartLabs will stipulate to SIPCO's alternative	This limitation is governed by §112 ¶ 6

[44] The term "means for indicating a total number of bytes" is used in claim 12 of the '511 patent.

portion of the data packet containing information for indicating a total number of byes"		construction	

The parties largely raise the same arguments discussed above in the context of "means for identifying the receiver." The Court finds that SIPCO has not rebutted the presumption that "means for indicating a total number of bytes" is a means-plus-function term governed by §112 ¶ 6. The plain language of the claims recite the function, "indicating a total number of bytes in the current packet." Coulomb again argues that the specification fails to disclose an adequate structure corresponding to the function of "indicating a total number of bytes in the current packet." COULOMB RESPONSE at 30. However, the Court finds that Figure 5 and the accompanying description in the specification show that the structure is "a field of the data packet containing the packet length 540."

Claim 12 recites additional elements of the data packet that **makes up** claim 8's "predefined communication protocol." *See* '511 patent at claim 12; *id.* at claim 11; *id.* at claim 8. As explained above in the context of "means for identifying . . ." the message structure of the data packet protocol is comprised of "fields" that serve particular functions. The fields of the data packet protocol are described with varying degrees of specificity, however, the fields are always described in the context of "bytes." *See e.g.,* '511 patent at 12:20-32 (describing the "to" address 500 in terms of bytes); *id.* at 33-39 (describing the "from" address 510 in terms of bytes). Moreover, Fig. 5 and its accompanying description in the specification includes a field titled "packet length 540." While not explicitly identifying the contents of the "packet length 540" function, one of ordinary skill in the art would understand that that the "packet length 540" measures the length of the packet in number of "bytes."

Accordingly, the Court finds that "means for indicating a total number of bytes in the data packet" is a means-plus-function element governed by § 112 ¶ 6 and recites the function of "indicating a total number of bytes in the data packet" corresponding to the following structure "a field of the data packet containing the data packet length 540."

l. "means for identifying the current packet"[45]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
Not a means-plus-function claim; does not require construction – entitled to plain & ordinary meaning. Alternatively, "a portion of the data packet containing information for identifying the current packet"	Claim is indefinite for failure to provide structure corresponding to the claimed function	Function: identifying the sender of the data packet SmartLabs will stipulate to SIPCO's alternative construction	This limitation is governed by §112 ¶ 6

The parties largely raise the same arguments discussed above in the context of "means for identifying the receiver." The Court finds that SIPCO has not rebutted the presumption that "means for identifying the indicating a total number of bytes" is a means-plus-function term governed by §112 ¶ 6. The plain language of the claims recite the function, "indicating the total number of packets in the current message." Coulomb again argues that the specification fails to disclose an adequate structure corresponding to the recited function. COULOMB RESPONSE at 30. However, just as above, the Court finds that the corresponding structure is found in Fig. 5 and its accompanying description. Specifically, the specification explains: "[t]he packet number 520 may be used to indicate a packet sequence number for a multiple-packet message." '511 patent at 12:44-45. Coulomb merely offers conclusory argument that "packet number 520" is

[45] The term "means for identifying the current packet" is used in claim 12 of the '511 patent.

insufficient structure. COULOMB'S RESPONSE at 30. The Court finds that this conclusory argument is insufficient to show by clear and convincing evidence that a person having ordinary skill in the art would find that "packet number 520" fails to adequately describe the structure of the function of "identifying the current packet."

Accordingly, the Court finds that "means for identifying the current packet" is a means-plus-function element governed by §112 ¶ 6 and with the recited function of "identifying the current packet" corresponding to the structure of "a field of the data packet containing the data packet containing the packet number 520."

m. "means for identifying the current message"[46]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
Not a means-plus-function claim; does not require construction – entitled to plain & ordinary meaning. Alternatively, "a portion of the data packet containing information for identifying the current packet"	Claim is indefinite for failure to provide structure corresponding to the claimed function	Function: identifying the sender of the data packet SmartLabs will stipulate to SIPCO's alternative construction	This limitation is governed by §112 ¶ 6

The parties largely raise the same arguments discussed above in the context of "means for identifying the receiver." The Court finds that SIPCO has not rebutted the presumption that "means for identifying the current message" is a means-plus-function term governed by §112 ¶ 6. The plain language of the claim recites the function, "identifying the current message." Coulomb again argues that the specification fails to disclose an adequate structure corresponding to the recited function. COULOMB RESPONSE at 30. However, just as above, the Court finds that

[46] The term "means for identifying the current message" is used in claim 12 of the '511 patent.

the corresponding structure is found in Fig. 5 and its accompanying description. Specifically, the specification explains:

> The message number 550 may be assigned by the site controller 150. Messages originating from the site controller 150 may be assigned an even number, while responses to the site controller 150 may have a message number equal to the original message number plus one. Thus, the site controller 150 may increments [sic] the message number 550 by two for each new originating message. This may enable the site controller 150 to coordinate the incoming responses to the appropriate command message."

'511 patent at 46-55. Thus, the "message number 550" identifies the current message. Accordingly, the Court finds that "means for identifying the current message" is a means-plus-function element governed by § 112 ¶ 6 and recites the function of "identifying the current message" corresponding to the following structure: "a field of the data packet containing the message number 550."

n. "means for indicating the total number of packets"[47]

SIPCO	Coulomb	SmartLabs	Schlage/Trane
Not a means-plus-function claim; does not require construction – entitled to plain & ordinary meaning. Alternatively, "a portion of the data packet containing information for identifying the current packet"	Claim is indefinite for failure to provide structure corresponding to the claimed function	Function: identifying the sender of the data packet SmartLabs will stipulate to SIPCO's alternative construction	This limitation is governed by §112 ¶ 6

The parties largely raise the same arguments discussed above in the context of "means for identifying the receiver." The Court finds that SIPCO has not rebutted the presumption that "means for indicating the total number of packets" is a means-plus-function term governed by

[47] The term "means for indicating the total number of packets" is used in claim 12 of the '511 patent.

§112 ¶ 6. The plain language of the claim recites the function, "identifying the total number of packets." Coulomb again argues that the specification fails to disclose an adequate structure corresponding to the recited function. COULOMB RESPONSE at 30. However, just as above, the Court finds that the corresponding structure is found in Fig. 5 and its accompanying description. Specifically, the patent states "the packet maximum 530 indicates the number of packets in the message." '511 patent at 12:44-45; *see also id.* at 12:8-19 (indicating that messages transmitted within the automated monitoring system include "a number of packets in a transmission 530"). For these reasons and the reasons discussed above in the context of "means for identifying the receiver," the Court finds that one of ordinary skill in the art would find that the patent adequately discloses the structure, "a field of the data packet containing the packet maximum 530").

CONCLUSION

For foregoing reasons, the Court adopts the constructions set forth above.

So ORDERED and SIGNED this 30th day of July, 2012.

JOHN D. LOVE
UNITED STATES MAGISTRATE JUDGE